

D.5.1

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LANSING, MICHIGAN
BINGHAM FARMS, MICHIGAN

November 18, 2002

VIA FACSIMILE

Andre Daugavietis, Esq.
Office of Regional Counsel (C-14J)
United States Environmental Protection Agency, Region 5
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

Re: *Henkel Surface Technologies, RCRA (3008h)-05-2002-0004*

Dear Mr. Daugavietis:

This confirms my voice mail messages to you of last week and today, in which I expressed the deep concerns of my client, Henkel Surface Technologies ("HST"), with the activities of the U.S. Environmental Protection Agency ("EPA") in the above-referenced matter.

Since EPA issued its Administrative Order to HST in this matter in April 2002, and even before its issuance, HST believes that it has cooperated fully with EPA. Regrettably, HST does not believe that its good-faith cooperation has been consistently reciprocated. HST urges EPA to rectify this situation immediately to facilitate the amicable settlement of this matter. The following are some of the reasons for HST's concern:

1. On May 22, 2002, the parties met at HST's property in Morenci, Michigan ("Site"). During the visit, Mr. Brian Freeman of EPA took soil samples outside the Site's western fence line. EPA has not shared the results of the sampling with HST.

2. On July 18, 2002, following discussions between the parties about additional Site information sought by EPA, HST submitted to EPA a work plan prepared by its consultant, The Dragun Corporation ("Dragun"), under which HST would perform additional Site investigation work. By letter dated August 21, 2002, EPA approved the work plan, and on September 17-18 HST performed the investigation work in cooperation with EPA and the Michigan Department of Environmental Quality ("MDEQ"). During this work, MDEQ took its own additional Site samples at Mr. Freeman's request. EPA has not shared with HST the results or even the parameters tested for in this sampling.

Andre Daugavietis, Esq.
November 18, 2002
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3. HST submitted its report of its Site investigation work, dated October 30, 2002, to EPA on a timely basis. On November 5, you advised me that EPA had questions regarding the report and invited HST to meet or have a conference call with EPA to discuss those questions. On November 8, I advised you that HST would be happy to have that discussion with EPA and requested advance notice of the questions so that HST would be fully prepared to respond during the anticipated meeting or conference call. Inexplicably, EPA's next response, on November 12, was not to ask any questions but to notify HST of EPA's intent to perform a risk assessment based on the results of the sampling. EPA did not provide HST with an explanation for this sudden change in direction, any information regarding the planned risk assessment, or an opportunity to review or comment on the data and protocol that EPA would use in performing the risk assessment.

4. HST believes that a risk assessment is unnecessary and, indeed, redundant. In Dragun's October 30, 2002 report, the results of HST's testing were compared to MDEQ's criteria under Part 201 of the Natural Resources and Environmental Protection Act, M.C.L. § 324.20101 *et seq.* These criteria incorporate potential exposure pathways and are risk-based. HST's use of these criteria to conclude that the Site conditions do not pose an unacceptable risk to human health was specifically authorized not only by the EPA-approved work plan (see Task 4 on page 7 of the work plan) but, more importantly, by the November 2000 Memorandum of Understanding ("MOU") between EPA and MDEQ, under which EPA states, in relevant part, that "Region 5 has reviewed and evaluated the clean-up standards and related processes for investigation and remediation under Part 201 of the NREPA and has determined that the MDEQ's use of the Part 201 cleanup standards and related processes, as used in the state's hazardous waste management program under Part 111 of the NREPA, are an acceptable way of achieving the objectives of the authorized Part 111 Corrective Action program." If this MOU means anything, it must mean that EPA recognizes that the Part 201 criteria apply to matters such as this one and there is no need for a site-specific risk assessment in this matter. Under these circumstances, HST does not understand what EPA expects to gain from performing a risk assessment. Again, if EPA has questions regarding Dragun's report and its conclusions, HST would be happy to discuss those questions with EPA and provide answers to the best of its ability.

5. EPA's unilateral and sudden decision to perform a risk assessment unfairly changes the ground rules by which the parties agreed to resolve this matter and will unnecessarily delay resolution of this matter. HST believes that EPA already has all of the information it needs to conclude that the Site does not pose an unacceptable risk to human health.

6. Consistent with the foregoing, HST cannot agree to a status report to the Regional Presiding Officer that could be interpreted to constitute HST's agreement with EPA's belief that a "risk assessment will provide information critical to the terms of a compliance order for this Site." Accordingly, HST will provide its own status report to the Regional Presiding Officer.

Andre Daugavietis, Esq.
November 18, 2002
Page 3

HST believes that its track record in this matter amply demonstrates its desire to cooperate with EPA and to resolve this matter amicably. HST believes that it deserves reciprocal treatment. However, EPA's unilateral sampling and testing without offering split samples or sharing EPA's results; its sudden and unexplained change of direction away from its own request for a meeting to discuss Dragun's report toward unilateral performance of a risk assessment; its failure to provide HST an opportunity to review and comment on the risk assessment protocol; its unexplained disregard for the conclusions drawn by Dragun's report, which was prepared in full accordance with the EPA-approved work plan; and its unexplained disregard of the EPA-MDEQ MOU; all lead HST to believe that it is not receiving sufficiently fair treatment from EPA in this matter.

HST urges EPA to promptly provide it with the missing information and explanations noted above, and to re-engage HST in a mutually cooperative process that will best facilitate an amicable resolution of this matter. Please call me to discuss this matter at your earliest convenience.

Sincerely,



Kenneth C. Gold

cc: George Hamper, U.S. EPA
Brian Freeman, U.S. EPA
Jack Garavanta, Henkel Surface Technologies
Glenn Young, Esq., Henkel Corporation
Jeffrey Bolin, The Dragun Corporation
C. Spencer, MDEQ
P. Quackenbush, MDEQ

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5

RECEIVED
REGIONAL HEARING
OFFICE

IN THE MATTER OF:)

Henkel Surface Technologies,)

Respondent.)
_____)

Docket No. RCRA (3008h)-05-2002-0004

'02 DEC 10 P2:48

US E.P.A. REGIONAL HEARING OFFICE
EPA-503-01-0001

ORDER

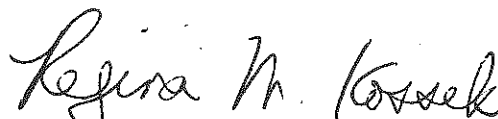
Complainant, EPA, and Respondent, Henkel Surface Technologies (HST), have submitted separate Status Reports. The reports show that on September 17 and 18, 2002, site investigation was performed by the Respondent's consultant, Dragun Corporation. The results were submitted to EPA on October 30, 2002. EPA characterizes the report as a "summary" and is in the process of having a risk assessment performed on the results. HST believes that the report, coupled with a November 30, 2000 Memorandum of Understanding between EPA and the Michigan Department of Environmental Quality, should result in a conclusion by EPA that no further action is necessary at the site.

At this point the parties are in disagreement. However, both positions are preliminary until the parties can analyze the, as yet unfinalized, risk assessment report. HST remains committed to seeking an amicable resolution of this matter. EPA has requested that the parties be ordered to report on the status of this matter in ninety (90) days.

The matter is progressing in a responsible and timely manner.

EPA's request is hereby granted. The parties are ordered to file a joint or separate status report(s) by February 27, 2003.

SO ORDERED.


Regina M. Kossek
Presiding Officer

Date: December 10, 2002

C-14J

December 2, 2002

Kenneth C. Gold, Esq.
Honigman Miller Schwartz and Cohn LLP
660 Woodward Avenue
2290 First National Building
Detroit, Michigan 48226.

RE: Henkel Surface Technologies, RCRA (3008h)-05-2002-0004

Dear Mr. Gold:

I am writing to respond to your letter dated November 18, 2002, in this matter.

EPA has sent copies of our sampling results to HST's consultant, the Dragun Corporation. You should be able to confirm with them that they have received the copies, and what the sampling results are for parameters of interest.

As we have discussed, there was no "sudden change in direction" with the risk assessment. EPA invited HST to discuss the sampling results and how to proceed in this matter, you asked for a list of questions in advance, and at the same time EPA realized that it made more sense to meet after the risk assessment is received. My lack of clear communications to you may have exacerbated HST's misunderstanding that the risk assessment was somehow punitive, and for that I apologize.

follow up on our meetings and discussions, as well as in response to your May 13, 2002 letter, which requested an informal conference on the Administrative Order. We would like to meet with Henkel in the next several weeks, if possible, to discuss the site and the site investigation and corrective action to be required under the Order.

Based on meetings held at the site on May 22, EPA plans to send Henkel a letter regarding the east side of the site and Mill Street stating that, based on current information, we are

satisfied that no further site investigation or corrective action now needs to be done on the east side of the site or on the street. I hope that Henkel agrees that this is a very significant step by the Agency toward resolution of this matter on an agreed and reasonable basis.

Based on the current state of information about the site, the following are the minimum site investigation and corrective action steps we would require Henkel to agree to perform at the site:

- 1) Confirm through sample analysis that Bean Creek is a hydraulic boundary (this should be done through a monitoring well west of the creek instead of using a GW model); analyze the samples for metals, semi volatile organics, volatile organics and PCBs.
- 2) Sediment analysis of Bean Creek (for constituents listed in Appendix 9) outside and downstream of Areas 6 & 7; an upstream background sediment sample should also be taken;
- 3) Determine exact GW flow direction at the areas of concern at the site, and installation of a more suitably located background well up-gradient of MW3;
- 4) Soil analysis for constituents listed in Appendix 9 outside the fence lines on the embankment down to the Creek; and
- 5) Sampling for the presence of PCBs and volatile and semivolatile organics at the west side of the site outside the SMWUs. Reports indicated PCB contamination, and no removals from SMWUs other than Area 6 took place.

I hope that Henkel can see the merit in agreeing to take these steps. If so, we should be able to reach a negotiated resolution of this case.

Dates we propose for a meeting or telephone conference between the parties are June 6, June 11, or June 13.

In order to arrange a meeting or conference, and if you have any questions about this letter, please contact me. My telephone number is (312)886-6663. My e-mail address is "daugavietis.andre@epa.gov."

Sincerely,

A. Daugavietis
Associate Regional Counsel

cc: Jack Garavanta

bcc: Brian P. Freeman 9J
George Hamper 9J

address for cc:

Jack Garavanta
Director, Regulatory Affairs and
Product Acceptance
Henkel Surface Technologies
Division of Henkel Corporation
32100 Stephenson Highway
Madison Heights, MI 48071

Andre Daugavietis

To: "Gold, Kenneth C." <KGold@honigman.com>

08/08/03 10:49 AM

Subject: RE: 8/8 letter to henkel

ken: here is a copy of the letter from me dated today that will be mailed out to you asap (probably on monday). i believe that the sediment sampling is likely to be the last significant issue for resolution. i hope that we can resolve it. -andre

August 8, 2003

Mr. Kenneth C. Gold
Honigman Miller Schwartz and Cohn LLP
2290 First National Building
660 Woodward Avenue
Detroit, MI 48226-3583

Re: RCRA Corrective Action Requirements for Henkel Site,
Dkt. No. RCRA(3008h)-05-2002-0004

Dear Mr. Gold:

I am writing to follow up on the meeting on July 15, 2003 regarding the Henkel Surface Technologies (HST) site in Morenci, Michigan (Site). As we indicated at the meeting, EPA hopes that the parties can agree to a course of action at the Site that will provide for mitigation of any risks to the public and environment, while allowing the Site property to be utilized in a way that benefits the Morenci community.

We appreciate the work (i.e. removals) that HST has done at the Site to date. The Agency's goal (and we believe the Company's goal also) is to ensure that the Site, as well as contaminants from the Site, pose no undue risk to human health or the environment. The recent risk assessments indicate that, even years after the previous work took place, there are still indications of human health risk related issues at the Site. The Agency wants to ensure that, before we declare the Site sufficiently "cleaned up," that HST conclusively establishes that the Site meets the Michigan Part 201 standards and that conditions at the Site present no undue risk to human health or the environment.

As we have indicated to HST, U.S. EPA continues to believe that limited further investigation at the Site is warranted to conclude the Company's and Agency's work at the Site. Samples taken in the September 2002 sampling events indicate levels of metals (including lead) and semi-volatiles both in and around the waste management areas, and outside the fence line, which may indicate impacts on human health risk. In addition, Bean Creek

sediments adjacent to the Site have never been addressed in any of the sampling or data that HST has provided. In order to provide an adequate picture of the risks from all contaminants at or from the Site, HST should address known contaminated spots within and outside the Site, as well as close off the potential that further contaminated spots exist inside or outside the Site fence line and/or in the Bean Creek sediments.

As discussed between HST, the City of Morenci and EPA, the Site land is intended to be utilized for public uses. Given this proposed use of the land, U.S. EPA believes that the corrective action selected for the Site should take into account the planned/potential public access to the land at the Site. As we have agreed, proposed institutional or administrative controls are acceptable tools for achieving corrective action goals where appropriate.

The additional corrective action steps EPA proposes to be performed at the Site are the following:

- 1) Characterize the vertical and horizontal nature and extent of contamination of Lead in soils in at least four sampling locations outside Waste Area 6. Remove and properly dispose of soils with lead concentrations not protective of human health and the environment (We believe that HST has agreed to do this as part of an agreed settlement).

Rationale: The supplemental risk assessment conducted by Techlaw for the US EPA indicates that subsurface values for lead range as high as 56000ppm. This value is far in excess of MDEQ Part 201 soil screening guidelines for lead, even for lite commercial use.

- 2) Obtain and analyze 10 sediment samples from Bean Creek. Two sediment samples should be taken near the east bank of the creek near the north end of the Henkel property, and two in the center of the creek, parallel with the bank sample locations. Two sediment samples should be taken upstream of the Henkel property, one from the center, and one from the east bank of the creek. Two sediment samples should be taken (one center, one east bank) from just beyond the Henkel property, downstream, to the north. Two downstream samples should be taken 200 feet north of the Henkel property (center and bank). These samples should be analyze for CLP Metals, VOCs, SVOCs and PCBs.

Rationale: Pictures of overturned drums of leaking waste from 1988-90 MDEQ Site inspection indicate that it is very reasonable to conclude that leaking hazardous waste materials have spilled outside the fence line, and drained down the steep embankment into Bean Creek. Known contamination still exists outside the fenceline, for metals and traces of polynuclear aromatic hydrocarbons. It is reasonable to assume that weatherization and

erosion caused spill contamination to exist outside the fence line in the concentrations found today.

3) Submit a Description of Current Conditions (DOCC) report, describing prior use history of the Facility, use of surrounding areas, known nature and extent of contamination including Bean Creek, and a brief synopsis of RCRA Closure work performed at the Site. A RCRA facility investigation (RFI) or corrective measures study and implementation plan (CMS and CMI) should not be necessary, unless further significant (per MDEQ Part 201 guidelines) contamination is found in the sampling described above.

Please get back to me regarding HST's willingness to undertake the corrective action steps set forth above. After receiving HST's response to the steps set forth above, EPA will make a decision regarding what should be done at the Site to leave it adequately safe for human health and the environment. The Company's response will likely make clear whether the parties will be able to reach agreement on the terms of an order in this matter. The time-frame for the company's response we discussed at the meeting is mid-August. If you want to discuss anything by telephone, my telephone number is (312) 886-6663.

Sincerely,

Andre Daugavietis
Associate Regional Counsel

cc: J. Garavanta, HST
R. Budnik, HST
J. Bolin, The Dragun Corporation
B. Freeman, 9J
P. Quackenbush, MDEQ

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Attorneys and Counselors

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Via U.S. Mail & Fax

January 6, 2005

Hon. Regina M. Kossek
Presiding Officer
U.S. Environmental Protection Agency
77 W. Jackson
Chicago, IL 60604

**Re: *In the Matter of Henkel Surface Technologies, Respondent, Docket No. RCRA
(3008(h)-05-2002-0004***

Dear Judge Kossek.:

This is to advise you that, as was urgently requested by U.S. EPA last month, Henkel Surface Technologies, Inc. (HST) executed the signature page to the December 22, 2004 draft of the Agreed Administrative Order proffered by U.S. EPA before the end of the year. Two original executed signature pages were sent to Mr. Daugavietis via overnight delivery on December 28, 2004. HST accomplished execution of the order in CY 2004 by interrupting vacation schedules for several personnel and diverting attention from other important year-end matters in order to respond to U.S. EPA's repeated urgent requests, coupled with vague threats, to sign the order in CY 2004.

On December 30, 2004, Mr. Daugavietis acknowledged receipt of the signature pages, but notified HST that the order had not yet received formal U.S. EPA approval and that he would put the order through the "normal EPA approval process" and present HST with a "final order" to sign in January. Mr. Daugavietis also advised that this process may result in substantive revisions to the order.

HST was extremely upset to learn that the order that it was so heavily pressured to execute in CY 2004 – and that, after much difficulty, it did execute in CY 2004 – was not approved and needed to go through the "normal approval process," during which it may be subject to substantive revisions. Given U.S. EPA's strong pressure on HST, exerted up to the beginning of the Christmas vacation period, to agree to the order before year-end, HST believes that it was reasonable to understand that the order had already received all required internal U.S. EPA approval.

HST has communicated its feelings on the matter to Mr. Daugavietis, to which he responded that he assumed that HST understood how EPA operates regarding signatures and finalization of orders. However, U.S. EPA never advised HST that the order needed further

HONIGMAN

Regina M. Kossek

January 6, 2005

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processing within U.S. EPA or that, after some date (presumably in mid-December but perhaps as early as November?), HST need not have seriously inconvenienced a number of its people to accommodate U.S. EPA's urgent requests for a signed order before the end of CY 2004 because, as U.S. EPA only now has explained, the order needed additional U.S. EPA processing that would not be completed until January no matter what.

HST brings these matters to your attention for the purpose of facilitating your understanding of the process in which we have been engaged for more than a year.

As of this date, HST has not received a final order or other word on the status of the approval process. HST now waits patiently for the outcome of that process.

Thank you very much for your time and consideration of the foregoing.

Very truly yours,

HONIGMAN MILLER SCHWARTZ AND COHN LLP

Kenneth C. Gold SB

Kenneth C. Gold

c: Andre Daugavietis, U.S. EPA
Jack Garavanta, HST

DETROIT.1449678.1

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VIA FACSIMILE AND
U.S. MAIL

November 13, 2003

Andre Daugavietis, Esq.
Office of Regional Counsel (C-14J)
United States Environmental Protection
Agency, Region 5
77 West Jackson Boulevard
Chicago, IL 60604-3590

Re: Henkel Surface Technologies, RCRA (3008h)-05-2002-0004

Dear Mr. Daugavietis:

Thank you for your November 5, 2003 letter providing the United States Environmental Protection Agency's ("EPA") position on the Bean Creek sediment sampling issue. The following provides Henkel's response and proposal:

1. As Henkel has indicated in earlier correspondence and during our July 15 meeting, under the controlling Board precedent (*In re Caribe General Electric Products, Inc.*, RCRA Permit Appeal No. 98-3, 8 E.A.D. 696 (EAB 2000)), before EPA may impose corrective action requirements for suspected off-site migration of contamination, EPA must demonstrate both: (1) the existence or likelihood of contamination that poses a threat to human health and the environment; and (2) that the contamination migrated from the site in question. For the reasons expressed in my October 31, 2003 letter and October 7, 2003 email, HST firmly believes that there is no reason to believe that such sediment contamination exists in Bean Creek, and there is significant direct evidence, including actual sediment sampling, disproving it. For the sake of brevity, I do not repeat those reasons in this letter.

2. Henkel would like to correct an error in EPA's November 5, 2003 letter: footnote 1 states that the method detection limit (MDL) for PCBs in the 1982 Michigan Department of Natural Resources sampling was 2 ppm. The MDL actually was 0.2 ppm, or 200 ppb. This MDL is acceptable even under today's standards.

KNIGMAN

re Daugavietis
November 13, 2003
Page 2

3. Despite the foregoing, Henkel is willing to sample and analyze creek sediment samples, at the locations and in the manner indicated in your November 5 letter, for nickel, lead and zinc, which are the three substances that the 1982 MDNR data indicates may be present in sediment at elevated levels. Henkel's willingness to perform this sampling is for settlement purposes only and should not be construed as an admission of any kind or as a waiver of any of its defenses in this matter.

Please let me know whether EPA agrees to the foregoing proposal. We look forward to your reply.

Sincerely,



Kenneth C. Gold

cc: Jack Garavanta, HST
Glenn Young, Esq., Henkel Corporation
Jeffrey Bolin, The Dracun Corporation

DET_B\398281.2



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

C-14J

November 5, 2003

Kenneth C. Gold, Esq.
Honigman Miller Schwartz and Cohn LLP
660 Woodward Avenue
2290 First National Building
Detroit, Michigan 48226.

RE: Henkel Surface Technologies, RCRA (3008h)-05-2002-0004

Dear Mr. Gold:

I am writing in response to your letter dated October 31, 2003, on the issue of basic sediment sampling of Bean Creek near the Henkel Surface Technologies' (HST) Site. Your letter indicated that "HST would be willing to entertain discussions with EPA to perform limited and reasonable creek sediment sampling based on an advance agreement on the parameters to be addressed in view of the work that has been performed to date, including the 1982 data." EPA appreciates HST's offer in this regard.¹

As we have discussed, EPA believes that HST should perform very basic sampling of Bean Creek sediments to confirm whether or not any contamination from the Site is currently in the sediments. We would agree to a program of sampling at sites corresponding to those sampled in 1982 (1000 feet upstream of Main Street, 200 feet upstream of Main Street, and at Main Street), and in addition at a site about 2-300 feet downstream of the Site boundary. Samples should be taken at each site at the surface of the sediment, from the center of the creek sediment bed. Appropriate QA samples should also be taken (i.e. VOA Trip blank, one duplicate and one matrix spike duplicate for each analytical suite (VOC, SVOC, etc.)). The parameters analyzed for should

¹ HST is correct that the 1982 data claims a detection limit of 2 ppb for PCBs. EPA's statement in the memo about the detection limit was based several of the other analytes on the summary data pages in the Administrative Record from the 1982 MDEQ sampling being reported in Parts Per Million. Nevertheless, EPA believes that if there are currently levels of PCBs in the sediments above the levels detected in 1982, that should be known.

include the following: EPA SW-846 Volatiles (8260 with 5035 sample prep procedure using the Encore® sampler), Semi Volatiles (8270), PCBs (8082) and Metals (6010). EPA requests to observe the sampling and to take splits. HST's sampling consultant should submit a sampling plan and quality assurance plan for the sampling.

Please get back to us by Wednesday November 12, if possible, regarding whether HST is willing to agree to perform limited sediment sampling as proposed above by EPA (the parties are to submit a report or reports to the Presiding Officer by November 14).

If you have any questions about this letter, or the proposed sampling, please contact me. My telephone number is (312)886-6663. My e-mail address is "daugavietis.andre@epa.gov."

Sincerely,

A. Daugavietis
Associate Regional Counsel

Enclosure

cc: J. Garavanta, HST
C. Spencer, MDEQ
P. Quackenbush, MDEQ

bcc: Brian P. Freeman 9J
George Hamper 9J

addresses for ccs:

Jack Garavanta
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VIA FACSIMILE AND
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October 31, 2003

Andre Daugavietis, Esq.
Office of Regional Counsel (C-14J)
United States Environmental Protection
Agency, Region 5
77 West Jackson Boulevard
Chicago, IL 60604-3590

Re: Henkel Surface Technologies, RCRA (3008h)-05-2002-0004

Dear Mr. Daugavietis:

Thank you for your October 24, 2003 email and October 30, 2003 fax letter providing the United States Environmental Protection Agency's ("EPA") position on the sediment sampling issue. The following provides Henkel's response and proposal:

1. EPA expresses concern that contaminants "may have" entered the creek since the 1982 data was generated. As I indicated in my October 7, 2003 email to you, however, there is no reason to believe that such contamination has occurred, and there is significant direct evidence disproving it. EPA's and MDNR's own inspection reports confirm that any compliance issues at the site were corrected before the July 1982 sediment sampling event and have remained in compliance, and Henkel's and EPA's subsequent soil and fence line sampling establish that there are no "trails" or other evidence of contamination from the site to the creek. More specifically:

- Occidental Chemical cleaned up the site under the auspices of the Michigan Department of Natural Resources (MDNR) and EPA.
- Occidental performed a hydrogeological investigation (D'Appolonia Report) of the site (to determine soil types, groundwater elevations and flow directions and groundwater quality) as requested by MDNR.
- MDNR collected sediment and water samples from Bean Creek on July 27, 1982. A report was issued on October 29, 1982. No further action was required.

HONIGMAN

Andre Daugavietis

October 31, 2003

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- EPA issued a Findings of Violation and Compliance Order (V-W-82-R-021) to Occidental Chemical on September 2, 1982. Occidental paid a penalty of \$25,000 and settled via a Consent Agreement and Final Order in July 1983. Henkel believes that this raises a res judicata / issue preclusion question with respect to the creek.
- Numerous MDNR inspections of the Morenci facility in subsequent years (1983 - 1987) revealed no significant violations of hazardous waste management (RCRA) regulations.
- An EPA PCB compliance inspection on July 27, 1982 found no violations of federal PCB regulations.
- Closure activities at the site have been conducted since 1992 in accordance with an approved MDEQ-WMD Closure Plan, with amendments. At no time has MDEQ considered Bean Creek to be an area of concern.

In sum, the July 1982 sampling was designed to identify, and would have identified, any issues related to the site before the sampling date and there is no reason to think any new contamination occurred afterward - in fact, there is ample reason to conclude otherwise.

2. Although newer analytical methods clearly are available, the 1982 data was reliable and accurate for its time. Data and other information from that period continue to be relied on in numerous matters, including by EPA itself in this matter. That newer methods are now available is not a justification for reopening a long-closed matter - nor should it be, as newer methods are always being developed. Moreover, EPA has not shown that use of the 1982 analytical methods missed or were likely to have missed detecting meaningful or relevant levels of contamination. Henkel respectfully submits that this EPA argument is an example of why Henkel is reluctant to agree to additional sampling. It seems that every time Henkel addresses an issue, the results are viewed skeptically and another issue is raised. As a result, Henkel is not confident that the parties will be closer to final resolution even if Henkel addresses this latest request for sampling.

3. The 1994 PA/VSI report that EPA has frequently cited as "evidence" that the site caused sediment contamination was written after the site was already closed and demolished and, in fact, is nothing more than pure conjecture based on a summation of prior MDNR reports. As discussed above, a closer reading of the 1982 reports and consideration of Henkel's more recent testing, all disprove the PA/VSI writer's after-the-fact, unsupported speculation.

4. EPA proposed an outline of a sediment sampling plan to Henkel on August 8, 2003, before Henkel pointed out to EPA the 1982 sediment and water data. Henkel has performed a preliminary review of Brian P. Freeman's October 28, 2003 memo purporting to critique that data (which was attached to your October 30 letter). Henkel believes that many of the claims in that memo are either inaccurate or irrelevant. By way of example, the memo claims, in

HONIGMAN

Andre Daugavietis

October 31, 2003

Page 3

paragraph 5, that the PCB sampling in 1982 is "essentially useless" because it was based on a method detection limit (MDL) of "200 ppm." However, a review of the summary table (copy attached) shows that the MDL for the PCB testing was actually 0.2 ppm. Accordingly, there is room for much debate about the opinions and judgments expressed in that memo. Henkel hopes that such a debate will not be necessary and the parties will be able to resolve this matter amicably. Henkel believes that EPA should be open to changes to its proposed sampling plan outline based on this newly discovered, useful information.

5. HST continues to believe that the evidence indicates that there is no need for creek sediment sampling. Nevertheless, despite all the foregoing points, Henkel would be willing to entertain discussions with EPA to perform limited and reasonable creek sediment sampling based on an advance agreement on the parameters to be addressed in view of the work that has been performed to date, including the 1982 data.

Sincerely,



Kenneth C. Gold

cc: Jack Garavanta, HST
Glenn Young, Esq., Henkel Corporation
Jeffrey Bolin, The Dragoon Corporation

Enclosure

DET_B\398281.1

Table

Sediment organic analysis data for samples collected (July 27, 1982) from
Bean Creek, in the vicinity of Parker Chemical Company (Morenci, Lenawee County).
K = less than the level of detection indicated. Values as µg/kg dry weight.

Station Number	Station Location	(Purgeable Halogens)	(Purgeable Aromatic Hydrocarbons)	Polychlorinated Biphenyls		
		Scan 1	Scan 2	Aroclor 1242	Aroclor 1254	Aroclor 1260
1	Upstream Control (1000' upstream of Main Street)	K1	K10	K200	K200	K200
5	200' upstream of Main Street (downstream of Parker Chemical Co. discharge)	K1	K10	K200	K200	K200
6	Main Street	K1	K10	K200	K200	K200

C-14J

October 30, 2003

Kenneth C. Gold, Esq.
Honigman Miller Schwartz and Cohn LLP
660 Woodward Avenue
2290 First National Building
Detroit, Michigan 48226.

RE: Henkel Surface Technologies, RCRA (3008h)-05-2002-0004

Dear Mr. Gold:

I am writing to confirm EPA's position (I have previously sent you an e-mail and left you a voice message conveying our position) on the issue of basic sediment sampling of Bean Creek near the Henkel Surface Technologies' (HST) Site. EPA believes that HST should perform very basic sampling of Bean Creek sediments (at areas similar to those sampled in 1982) to confirm whether or not any contamination from the Site is currently in the sediments. I am attaching a copy of a memorandum that summarizes the technical basis for EPA's position on the 1982 data, and the additional sampling.

EPA has carefully reviewed the State of Michigan's 1982 sediment sampling data. We have concluded that the 1982 data does not provide an adequate picture of current potential contamination and risk levels. Reasons for our conclusion include the following: 1) the data is old and contaminants may have entered the Creek after the 1982 samples were taken; 2) the 1982 data was developed with test methods and detection limits that are outdated, and which tended to under-state the amount of contaminants analyzed; and 3) the 1982 data actually confirms that contaminants entered the Creek as it passes the Site.

As a result of our analysis, EPA still believes that basic sediment sampling must be done in the Creek at and near the Site in order to assess current conditions. We still hope that HST agrees to take the samples as part of an agreed order resolving this matter. However, if HST is not prepared to agree to take the samples, EPA plans to take sediment samples as soon as possible, perhaps in November. We believe that the Agency has

clear authority to order HST to perform the sampling, but, at least at this point, we believe that it would be prudent to obtain the samples promptly, without awaiting conclusion to litigation over an order to HST to sample. We would seek to have HST repay the cost of the sediment sampling and analysis.

Please get back to me by Friday November 7, regarding whether HST is willing to agree to perform limited sediment sampling in the Creek near the Site as proposed by EPA, so that the Company, the Agency, and the public can be assured that the sediments do not pose significant risk to health or the environment. The parties are to submit a report or reports to the Presiding Officer by November 14. Also, EPA wants to perform the sampling as soon as possible if there is no agreement between the parties, before the onset of Winter makes the task more difficult.

If you have any questions about this letter, or the proposed sampling, please contact me. My telephone number is (312)886-6663. My e-mail address is "daugavietis.andre@epa.gov."

Sincerely,

A. Daugavietis
Associate Regional Counsel

Enclosure

cc: J. Garavanta, HST
C. Spencer, MDEQ
P. Quackenbush, MDEQ

bcc: Brian P. Freeman 9J
George Hamper 9J

addresses for ccs:

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LANSING, MICHIGAN
BINGHAM FARMS, MICHIGAN

February 21, 2003

VIA FACSIMILE & FEDERAL EXPRESS

Andre Daugavietis, Esq.
Office of Regional Counsel (C-14J)
United States Environmental Protection Agency, Region 5
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

Re: *Henkel Surface Technologies, RCRA (3008h)-05-2002-0004*

Dear Mr. Daugavietis:

Henkel Surface Technologies ("HST") and its consultant, The Dragun Corporation ("Dragun"), have reviewed the "Human Health Risk Assessment for Henkel Surface Technologies Morenci, Michigan U.S.EPA ID No. MID058723867" (the "Site") prepared by TechLaw, Inc. ("TechLaw") on behalf of the United States Environmental Protection Agency ("U.S. EPA"), dated December 20, 2002 and received by Dragun on or about January 16, 2003 (the "Risk Assessment"). This letter provides the results of HST's and Dragun's review of the Risk Assessment.

A. Summary.

1. HST believes that the Risk Assessment grossly overstates any potential risk posed by the Site because the Risk Assessment inexplicably ignores a large volume of pre-existing soil and groundwater data that U.S. EPA had in its possession and that, had it been provided to and considered by TechLaw, unquestionably would have resulted in a finding that the Site poses no significant risk and no recommendation for further investigation. The Risk Assessment was performed based solely on Dragun's "Summary Report, Soil and Groundwater Sampling, Henkel Surface Technologies Facility, Morenci, Michigan," dated October 30, 2002. As U.S. EPA knows, this sampling was a very limited effort and supplemented numerous prior relevant data points. HST is extremely concerned that TechLaw was not provided with the large volume of prior data. Such failure materially prejudiced the outcome of the Risk Assessment because, throughout the Risk Assessment, TechLaw cites "lack of data" as its reason for using far more conservative assumptions than necessary or appropriate. This has caused the creation of a Risk Assessment that grossly exaggerates the risk posed by Site conditions. Put simply, the Risk Assessment is not credible.

Andre Daugavietis, Esq.

February 21, 2003

Page 2

HST believes that U.S. EPA should share HST's alarm about this glaring failure and asks U.S. EPA to explain why U.S. EPA did not provide TechLaw with this information for consideration in performing the Risk Assessment.

✓ 2. No further investigation is warranted because Dragun has concluded that the Site is suitable for a limited industrial remedial action under Part 201 of Michigan's Natural Resources and Environmental Protection Act ("Part 201"), which U.S. EPA has not disputed. U.S. EPA has explicitly stated that such remedial actions are adequately protective of human health and the environment and has explicitly accepted Part 201 limited industrial cleanup remedial actions at other U.S. EPA-lead RCRA corrective action sites in Michigan. U.S. EPA similarly agreed to use Part 201 criteria in this matter but after the results under Part 201 showed no need for further investigation, U.S. EPA reneged on that agreement. U.S. EPA has offered no justification for treating HST differently from others similarly situated. ✓

B. Discussion.

Even without conducting a detailed review of the risk algorithms, Dragun noted the following obvious, indeed glaring, inaccuracies and misrepresentations in the Risk Assessment:

1. TechLaw performed the Risk Assessment based on only limited and selective data from the Site. Had U.S. EPA provided all of the relevant data to TechLaw, the Risk Assessment would have concluded that the Site does not pose a significant risk and no additional investigation would have been recommended. For example:

a. The Risk Assessment inexplicably ignores extensive and thorough Site and regional data that is far more comprehensive than the very limited data reported in Dragun's October 30, 2002 report, on which the Risk Assessment solely relies. HST provided copies of the following reports to Mr. Freeman of U.S. EPA under a cover letter dated April 29, 2002.

i. Interim Soil Report – Closure Activities, Parker Amchem, Hazardous Waste Storage Pads, Morenci, Michigan Facility MID 058 723 867, dated January 31, 1995, by The Dragun Corporation.

ii. Groundwater Investigation Report – Closure Activities, Parker Amchem, Hazardous Waste Storage Pads, Morenci, Michigan Facility MID 058 723 867, dated March 27, 1995, by The Dragun Corporation.

iii. Soil Characterization Report, Henkel Surface Technologies Facility, Morenci, Michigan Facility MID 058 723 867, dated October 22, 1997, by The Dragun Corporation.

Andre Daugavietis, Esq.
February 21, 2003
Page 3

iv. Groundwater Sampling Report, Henkel Surface Technologies Facility, Morenci, Michigan Facility MID 058 723 867, dated January 28, 1999, by The Dragun Corporation.

v. Limited Soil Removal Report, Henkel Surface Technologies Facility, Morenci, Michigan Facility MID 058 723 867, dated February 14, 2000, by The Dragun Corporation.

vi. Hydrogeologic Study and Wellhead Protection Area Delineation, City of Morenci, dated July 1997, by Earth Tech.

b. The above-listed reports document soil and groundwater investigation activities that HST conducted at the subject property between 1993 and 1999 relative to meeting the requirements of the Closure Plan approved by the Michigan Department of Environmental Quality ("MDEQ") in 1993. Additionally, the February 14, 2000 Limited Soil Removal Report reflects the removal of an isolated area of soil impact as determined by the previous investigative activities. This removal was performed in response to a March 8, 1999 MDEQ letter to HST, which stated that MDEQ sought this soil removal as a means to achieve the objectives of Dragun's MDEQ-approved closure plan. Therefore, this removal, which fully addressed MDEQ's concerns as expressed in its March 8, 1999 letter, achieved RCRA closure at the Site. Further, the Wellhead Protection Plan, which was prepared by Earth Tech on behalf of the City of Morenci, provides information relating to the hydrogeology of the area and to the protection of the drinking water aquifer underlying the City of Morenci. These reports provide information regarding soil and groundwater quality at the Site and are based on more than 80 soil samples and 30 groundwater samples. Additionally, these reports provided the basis for negotiations with the MDEQ through which RCRA closure was nearly achieved prior to the U.S. EPA involvement in 1999.

c. The Risk Assessment erroneously contains numerous references to a "lack of subsurface soil data" (see, e.g., pages 8, 10, 19, and 21). As the above-listed reports make clear, however, a large volume of subsurface soil data exists for the Site. Clearly, provision of this information to TechLaw would have provided TechLaw with a large volume of material information regarding subsurface soil conditions and potential risks at the Site. By not providing this information to TechLaw, U.S. EPA crippled TechLaw's ability to perform an accurate risk assessment.

d. The Risk Assessment misrepresents the Site as being "uncontrolled" and "unfenced." This assumption is totally incorrect. The Site is completely fenced, with controlled access through locked gates. Certainly, knowledge of these Site controls would have provided TechLaw with a more realistic risk exposure scenario. Without this

Andre Daugavietis, Esq.
February 21, 2003
Page 4

knowledge, TechLaw had no choice but to conduct the Risk Assessment under ultra-conservative assumptions that did not reflect the facts.

e. The Risk Assessment erroneously states that "exposure to benzo(a)pyrene and dibenzo(a,h)anthracene in soil ... contributed significantly to the total risk." This was a clearly erroneous conclusion, for at least the following reasons:

i. As reported in Dragun's October 30, 2002 report, these two chemicals were detected in only one of 16 soil samples (SB-10) at concentrations slightly in excess of MDEQ's Part 201 residential cleanup criteria and neither was detected in excess of any applicable Part 201 industrial cleanup criteria. TechLaw should not have used this single detection as representative of risk across the entire Site when the data from the October 30, 2002 report clearly indicates that this single detection is distinctly unrepresentative of the Site. Rather, TechLaw should have utilized an average concentration (or 95% upper confidence limit of the arithmetic mean as is done in Part 201), as it did with its evaluation of lead (see page 14 of the Risk Assessment). There is no justification for TechLaw's failure to treat the PNAs the same as lead. Had it done so, it would have concluded, as it did for lead, that these substances pose no risk.

ii. The Risk Assessment erroneously concludes that trespassers are a potentially exposed population to the results at SB-10. This fails to consider that the location of SB-10 is within the controlled and fenced area of the Site, meaning that exposure to trespassers should not have been considered likely, and no risk should have been realized.

iii. The Risk Assessment erroneously claims that "it appears that contaminated media near the western edge of HST property may be migrating off-site via airborne particulates and surface runoff to Bean Creek" (page 6). This statement has absolutely no basis. None of the soil samples collected outside of the fenced area along the embankment of Bean Creek contained benzo(a)pyrene or dibenzo(a,h)anthracene at concentrations in excess of Part 201 residential cleanup criteria. Therefore, Accordingly, recreational exposure by adults and children is highly unlikely and no risk is realized.

f. The Risk Assessment fails to consider the institutional controls proposed and easily implementable under Part 201 for the Site including no use of groundwater and limitation to industrial use only. As stated above, knowledge of these Site controls would have provided TechLaw with a more realistic risk exposure scenario. Without this knowledge, TechLaw had no choice but to conduct the Risk Assessment under ultra-conservative assumptions that did not reflect the facts.

Andre Daugavietis, Esq.
February 21, 2003
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2. The Risk Assessment was not conducted consistent with Part 201 and, therefore, does not accurately reflect risk assumptions utilized by U.S. EPA for closure of other U.S. EPA-lead RCRA sites in Michigan. U.S. EPA similarly agreed to use Part 201 criteria in this matter but after the results under Part 201 showed no need for further investigation, U.S. EPA reneged on that agreement. U.S. EPA has offered no justification for treating HST differently from others similarly situated.

a. The Risk Assessment was conducted based upon Superfund Risk Assessment Guidance, which is inconsistent with the November 2000 Memorandum of Understanding ("MOU") between U.S. EPA and MDEQ recognizing the use of Michigan's Part 201 risk-based cleanup criteria.

b. U.S. EPA has expressly agreed to a Part 201 limited industrial remedial action at other U.S.-lead RCRA corrective action sites in Michigan. For example:

i. Lamina, Inc., Bellaire, Michigan, MID 006 017 966 – a site with far more complex circumstances and contamination than HST's Site. See U.S. EPA's Final Decision/Response to Comments, dated September 30, 1999, and Fact Sheet, Statement of Basis (undated) (copies enclosed).

ii. Allied Signal/ Detroit Coke – also a site with far more complex circumstances and contamination than HST's Site. See Memorandum of Understanding between U.S. EPA and MDEQ regarding redevelopment of the Detroit Coke site, dated April 29, 1999 ("The Parties acknowledge that Michigan's CA Program pursuant to Part 111 of the Natural Resources and Environmental Protection Act ... (NREPA), which incorporates the remediation provisions of Part 201 of the NREPA and the MDEQ's remediation program pursuant to Part 201 of the NREPA, provides for a remediation that is protective of human health and safety, welfare, and the environment, 42 U.S.C. §6926; 40 C.F.R. Part 272, Subpart X;") (paragraph 14) (copy of the entire MOU is enclosed).

c. HST has discussed the Site with U.S. EPA since 1999. All of the previous discussions with U.S. EPA have been based upon evaluation of the Site relative to Part 201 risk-based cleanup criteria. These discussions have been reflected in U.S. EPA-approved work plans including the first plan submitted to U.S. EPA, "Work Plan, Groundwater Sampling, Henkel Surface Technologies Facility, Morenci, Michigan MID 058 723 867," dated February 26, 2001.

d. The most recent work plan, dated July 18, 2002, generated the data used by TechLaw for the Risk Assessment and was approved by Mr. Freeman of U.S. EPA in a letter dated August 21, 2002. The work plan stated that Part 201 criteria would be used to evaluate the data. Consistent with the U.S. EPA-approved work plan, Dragun's

Andre Daugavietis, Esq.
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Page 6

October 30, 2002 report concluded that the Site did not pose unacceptable risks and was well-suited for a limited industrial remedial action under Part 201 – again, a remedy which is explicitly accepted by U.S. EPA.

e. U.S. EPA did not accept Dragun's result, yet has not explained its reasons for this rejection and has never notified HST of a single flaw in Dragun's analysis. Rather, U.S. EPA unilaterally performed the Risk Assessment under the conditions described above.

Sincerely,



Kenneth C. Gold

cc: George Hamper, U.S. EPA (w/enc.)
Brian Freeman, U.S. EPA (w/enc.) ✓
Regina Kossek, Presiding Officer, U.S. EPA (w/enc.)
Jack Garavanta, Henkel Surface Technologies (w/enc.)
Glenn Young, Esq., Henkel Corporation (w/enc.)
Jeffrey Bolin, The Dragun Corporation (w/enc.)
C. Spencer, MDEQ (w/enc.)

Enclosures

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LANSING, MICHIGAN
BINGHAM FARMS, MICHIGAN

November 18, 2002

VIA FACSIMILE

Andre Daugavietis, Esq.
Office of Regional Counsel (C-14J)
United States Environmental Protection Agency, Region 5
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

Re: *Henkel Surface Technologies, RCRA (3008h)-05-2002-0004*

Dear Mr. Daugavietis:

This confirms my voice mail messages to you of last week and today, in which I expressed the deep concerns of my client, Henkel Surface Technologies ("HST"), with the activities of the U.S. Environmental Protection Agency ("EPA") in the above-referenced matter.

Since EPA issued its Administrative Order to HST in this matter in April 2002, and even before its issuance, HST believes that it has cooperated fully with EPA. Regrettably, HST does not believe that its good-faith cooperation has been consistently reciprocated. HST urges EPA to rectify this situation immediately to facilitate the amicable settlement of this matter. The following are some of the reasons for HST's concern:

1. On May 22, 2002, the parties met at HST's property in Morenci, Michigan ("Site"). During the visit, Mr. Brian Freeman of EPA took soil samples outside the Site's western fence line. EPA has not shared the results of the sampling with HST.

2. On July 18, 2002, following discussions between the parties about additional Site information sought by EPA, HST submitted to EPA a work plan prepared by its consultant, The Dragun Corporation ("Dragun"), under which HST would perform additional Site investigation work. By letter dated August 21, 2002, EPA approved the work plan, and on September 17-18 HST performed the investigation work in cooperation with EPA and the Michigan Department of Environmental Quality ("MDEQ"). During this work, MDEQ took its own additional Site samples at Mr. Freeman's request. EPA has not shared with HST the results or even the parameters tested for in this sampling.

Andre Daugavietis, Esq.
November 18, 2002
Page 2

3. HST submitted its report of its Site investigation work, dated October 30, 2002, to EPA on a timely basis. On November 5, you advised me that EPA had questions regarding the report and invited HST to meet or have a conference call with EPA to discuss those questions. On November 8, I advised you that HST would be happy to have that discussion with EPA and requested advance notice of the questions so that HST would be fully prepared to respond during the anticipated meeting or conference call. Inexplicably, EPA's next response, on November 12, was not to ask any questions but to notify HST of EPA's intent to perform a risk assessment based on the results of the sampling. EPA did not provide HST with an explanation for this sudden change in direction, any information regarding the planned risk assessment, or an opportunity to review or comment on the data and protocol that EPA would use in performing the risk assessment.

4. HST believes that a risk assessment is unnecessary and, indeed, redundant. In Dragun's October 30, 2002 report, the results of HST's testing were compared to MDEQ's criteria under Part 201 of the Natural Resources and Environmental Protection Act, M.C.L. § 324.20101 *et seq.* These criteria incorporate potential exposure pathways and are risk-based. HST's use of these criteria to conclude that the Site conditions do not pose an unacceptable risk to human health was specifically authorized not only by the EPA-approved work plan (see Task 4 on page 7 of the work plan) but, more importantly, by the November 2000 Memorandum of Understanding ("MOU") between EPA and MDEQ, under which EPA states, in relevant part, that "Region 5 has reviewed and evaluated the clean-up standards and related processes for investigation and remediation under Part 201 of the NREPA and has determined that the MDEQ's use of the Part 201 cleanup standards and related processes, as used in the state's hazardous waste management program under Part 111 of the NREPA, are an acceptable way of achieving the objectives of the authorized Part 111 Corrective Action program." If this MOU means anything, it must mean that EPA recognizes that the Part 201 criteria apply to matters such as this one and there is no need for a site-specific risk assessment in this matter. Under these circumstances, HST does not understand what EPA expects to gain from performing a risk assessment. Again, if EPA has questions regarding Dragun's report and its conclusions, HST would be happy to discuss those questions with EPA and provide answers to the best of its ability.

5. EPA's unilateral and sudden decision to perform a risk assessment unfairly changes the ground rules by which the parties agreed to resolve this matter and will unnecessarily delay resolution of this matter. HST believes that EPA already has all of the information it needs to conclude that the Site does not pose an unacceptable risk to human health.

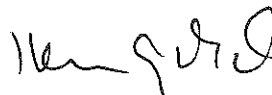
6. Consistent with the foregoing, HST cannot agree to a status report to the Regional Presiding Officer that could be interpreted to constitute HST's agreement with EPA's belief that a "risk assessment will provide information critical to the terms of a compliance order for this Site." Accordingly, HST will provide its own status report to the Regional Presiding Officer.

Andre Daugavietis, Esq.
November 18, 2002
Page 3

HST believes that its track record in this matter amply demonstrates its desire to cooperate with EPA and to resolve this matter amicably. HST believes that it deserves reciprocal treatment. However, EPA's unilateral sampling and testing without offering split samples or sharing EPA's results; its sudden and unexplained change of direction away from its own request for a meeting to discuss Dracun's report toward unilateral performance of a risk assessment; its failure to provide HST an opportunity to review and comment on the risk assessment protocol; its unexplained disregard for the conclusions drawn by Dracun's report, which was prepared in full accordance with the EPA-approved work plan; and its unexplained disregard of the EPA-MDEQ MOU; all lead HST to believe that it is not receiving sufficiently fair treatment from EPA in this matter.

HST urges EPA to promptly provide it with the missing information and explanations noted above, and to re-engage HST in a mutually cooperative process that will best facilitate an amicable resolution of this matter. Please call me to discuss this matter at your earliest convenience.

Sincerely,



Kenneth C. Gold

cc: George Hamper, U.S. EPA /
Brian Freeman, U.S. EPA ✓
Jack Garavanta, Henkel Surface Technologies
Glenn Young, Esq., Henkel Corporation
Jeffrey Bolin, The Dracun Corporation
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LANSING, MICHIGAN
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August 29, 2002

Andre Daugavietis, Esq.
Office of Regional Counsel (C-14J)
United States Environmental Protection Agency, Region 5
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

Re: *Henkel Surface Technologies, RCRA (3008h)-05-2002-0004*

Dear Mr. Daugavietis:

In response to your letters of August 2 and August 21, 2002, and our recent telephone conversations regarding the above-referenced matter, Henkel Surface Technologies ("HST") would like to summarize our understanding of the status of the various issues, as follows:

Issue 1: Bean Creek sediments: Your August 2 letter states that the U.S. Environmental Protection Agency ("U.S. EPA") is interested in "a basic sediment analysis of Bean Creek." As you know, HST has agreed to perform certain soil testing outside the fence line between HST's property ("Site") and the creek. As we discussed at our June 26, 2002 meeting and during our August 13, 2002 conversation, HST believes that whether sediment sampling is necessary should be assessed following receipt of the results of the proposed soil sampling. If the soil sampling between the Site and the creek reveals no issues, then HST believes that there would be no rationale for testing the creek sediments.

Issue 2: Potential for volatile organic compounds ("VOCs") in shallow groundwater under the Site to migrate under Bean Creek: HST appreciates U.S. EPA's approval of its proposed work to address this issue.

Issue 3: Source of the VOCs in the shallow groundwater under a portion of the Site: HST appreciates U.S. EPA's approval of its proposed work to address this issue.

Issue 4: Groundwater entering the west side of the Site: HST would like to clarify that HST never proposed to install a new upgradient monitoring well at the Site. HST only suggested that U.S. EPA has not reviewed potential off-site sources for the volatile organic compounds previously detected in shallow groundwater under a portion of the Site.

Andre Daugavietis, Esq.
August 29, 2002
Page 2

Issue 5: Soil sampling outside fence: HST appreciates U.S. EPA's approval of its proposed work to address this issue.

Issue 6: Soil sampling in "areas of concern": HST appreciates U.S. EPA's approval of its proposed work to address this issue. Your August 2 letter references possible additional soil testing between areas of concern. HST has not agreed to perform such testing. Considering the previous sampling that HST has performed (see Figure 2 in the work plan), HST believes that its agreement to perform additional testing in areas of concern 2, 5 and 7 is sufficient. If no issues are detected in those areas, HST believes that there would be no reason to test between those areas.

Work plan: HST appreciates U.S. EPA's approval, as set forth in your August 21 letter, of HST's proposed work plan to accomplish the work agreed to during our telephone conference on June 26, 2002. Although your August 2 letter did not acknowledge that U.S. EPA as of that date had received HST's work plan, HST's consultant, Mr. Jeff Bolin of The Dragoon Corporation, sent the work plan to U.S. EPA on July 18, in accordance with the schedule set forth in my July 9 letter to you. During our August 13 conversation, you acknowledged that U.S. EPA had received the work plan before the date of your August 2 letter and that the work plan contained an acceptable work schedule.

Thank you for your continuing cooperation in this matter. If you have any questions, please contact me.

Sincerely,



Kenneth C. Gold

cc: George Hamper, U.S. EPA
Brian Freeman, U.S. EPA ✓
Jack Garavanta, Henkel Surface Technologies
Glenn Young, Esq., Henkel Corporation
Jeffrey Bolin, The Dragoon Corporation
C. Spencer, MDEQ
P. Quackenbush, MDEQ



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF

C-14J

August 21, 2002

Kenneth C. Gold, Esq.
Honigman Miller Schwartz and Cohn LLP
660 Woodward Avenue
2290 First National Building
Detroit, Michigan 48226

Re: RCRA Corrective Action Requirements for Henkel Property,
Dkt. no. RCRA(3008h)-05-2002-0004 - Approval of Work Plan

Dear Mr. Gold:

I am writing in response to the Work Plan for soil and groundwater sampling at the Site, dated July 18, 2002, submitted to us by Henkel, through its consultant Dragun Corporation. Mr. Freeman has reviewed the Work Plan and we find the Plan approvable with the following comments.

From our telephone conversations and my August 2, 2002 letter, Henkel should understand that EPA believes that several activities not listed in the Work Plan should also be performed at the Site. These include installing an additional monitoring well if Henkel still believes that some of the contaminants in the groundwater may be originating from outside the Site, and sampling of sediments in Bean Creek. We have agreed to "table" these issues until we receive the results of the soil and groundwater sampling under the Plan.

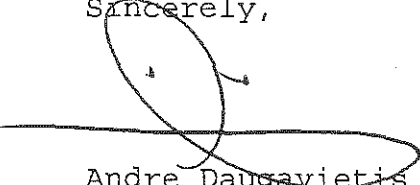
On page 5 of the Work Plan, the last sentence of the Task 1 section says "If the two bank piezometers have higher heads than the central piezometer and the creek, the groundwater from the site has to discharge to the creek". We do not totally concur with this statement. If the saturated thickness of the aquifer beneath the site is thick enough, there could be regional flow under the creek and the upper portion of the groundwater on both banks could still vent to the creek. This situation is not likely at the Site, but should be assessed from the data that will be gathered.

With the comments noted above, this letter transmits approval of the July 18, 2002 Work Plan as submitted. Henkel should proceed to make arrangements to implement the soil and groundwater sampling under the Work Plan. The timetable we have discussed (and as set out on page 7 of the Work Plan) is as follows: 2 weeks to schedule and perform the sampling work; 2 to 3 weeks for laboratory testing; and 3 to 4 weeks to complete a report. Under this timetable the report would be due no later than October 23, 2002. We would appreciate receiving the report sooner if it is available.

We look forward to notification, in the next several days if possible, of the dates that the work on Site will proceed. Please have Dragun Corporation or Henkel communicate those dates to Mr. Freeman, as well as Mr. Spencer or Mr. Quackenbush at MDEQ, as soon as the dates are set. Please be advised that EPA and/or MDEQ representatives or contractors may be present at the Site for some or all of the activities and may request splits of samples taken. The company's cooperation will be appreciated.

If your client or consultant has any technical questions, please have them contact Brian Freeman. His telephone number is (312) 353-2720. Any inquiries regarding the Plan approval should be addressed to me. My telephone number is (312) 886-6663.

Sincerely,



Andre Daugavietis
Associate Regional Counsel

cc: J. Garavanta, HST
J. Bolin, Dragun Corp.
B. Freeman, 9J
C. Spencer, MDEQ
P. Quackenbush, MDEQ

8/14 draft

C-14J

August 15, 2002

Kenneth C. Gold, Esq.
Honigman Miller Schwartz and Cohn LLP
660 Woodward Avenue
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Detroit, Michigan 48226

Re: RCRA Corrective Action Requirements for Henkel Property,
Dkt. no. RCRA(3008h)-05-2002-0004 - Approval of Work Plan

Dear Mr. Gold:

I am writing in response to the Work Plan for soil and groundwater sampling dated July 18, 2002, submitted by Henkel, through its consultant Dragun Corporation, to us last month. Mr. Freeman has reviewed the Work Plan and we have no fundamental issues with the Plan as written. From our telephone conversations and my August 2, 2002 letter, Henkel should understand that EPA believes that several activities not listed in the Work Plan should also be performed at the Site. These include installing an additional monitoring well if Henkel still believes that some of the contaminants in the groundwater may be originating from outside the Site, and sampling of sediments in Bean Creek. We have agreed to "table" these issues until we receive the results of the soil and groundwater sampling under the Work Plan.

This letter transmits approval of the July 18, 2002 Work Plan as submitted. Henkel should proceed to make arrangements to implement the soil and groundwater sampling under the Work Plan. The timetable we have discussed (and as set out on page 7 of the Work Plan) is as follows: 2 weeks to schedule and perform the sampling work; 2 to 3 weeks for laboratory testing; and 3 to 4 weeks to complete a report. Under this timetable the report would be due no later than October 17, 2002. We would appreciate receiving the report sooner if it is available.

We look forward to notification, in the next several days if possible, of the dates that the work on Site will proceed. Please have Dragun Corporation or Henkel communicate those dates to Mr. Freeman, as well as Mr. Spencer or Mr. Quackenbush at MDEQ, as soon as the dates are set. Please be advised that EPA and/or MDEQ representatives or contractors may be present at the Site for some or all of the activities and may request splits of samples taken. The company's cooperation will be appreciated.

If your client or consultant has any technical questions, please have them contact Brian Freeman. His telephone number is (312) 353-2720. Any legal inquiries should be addressed to me. My telephone number is (312) 886-6663.

Sincerely,

Andre Daugavietis
Associate Regional Counsel

cc: J. Garavanta, HST
B.P. Freeman, 9J
C. Spencer, MDEQ
P. Quackenbush, MDEQ

bcc: G. Hamper, 9J
A. Daugavietis, ORC, 14J

addresses for cc's:

Mr. Jack Garavanta
Director, Regulatory Affairs and Product Acceptance
Henkel Surface Technologies
Division of Henkel Corporation
32100 Stephenson Highway
Madison Heights, MI 48071

Clay Spencer
Michigan Dept. of Environmental Quality
Waste Management Division
Constitution Hall
525 W. Allegan
P.O. Box 30241
Lansing, MI 48909

Pete Quackenbush
Michigan Dept. of Environmental Quality
Waste Management Division
Constitution Hall
525 W. Allegan
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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF

C-14J

August 2, 2002

Kenneth C. Gold, Esq.
Honigman Miller Schwartz and Cohn LLP
660 Woodward Avenue
2290 First National Building
Detroit, Michigan 48226

Re: RCRA Corrective Action Requirements for Henkel Property,
Dkt. no. RCRA(3008h)-05-2002-0004

Dear Mr. Gold:

I am writing in response to your letter dated July 9, 2002, regarding the telephone conference the parties held on June 26, 2002. The following is EPA's understanding of the six issues discussed during the call. I believe that the parties are in substantial agreement on them, and I am writing to convey EPA's position on each of the issues.

Issue 1: Bean Creek sediments. EPA is interested in a basic sediment analysis of Bean Creek. We would like to see sediment sampling results from the following areas of the Creek bed: 1) slightly upstream of the Site; 2) next to the Site; and 3) downstream of the Site. As your letter states, we agreed to defer the issue until results of the fence line soil sampling are received (see Issue 5). Nevertheless, please understand that EPA will likely seek to have the sediment analysis performed. EPA prefers to have HST conduct the sampling. However, if HST does not agree to it, please understand that the EPA or a contractor will likely take the samples. If HST does conduct the sampling, EPA requests the opportunity to take splits of the samples.

Issue 2: Groundwater analysis across creek. The parties agreed to HST's proposal to install piezometers to evaluate hydraulic conditions across Bean Creek from the site.

Issue 3: Source of groundwater contamination. HST agreed to re-sample from the monitoring wells. If the current contaminant levels are below the levels observed several years ago, then HST

has probably controlled the source already, and natural attenuation would appear to be underway. If the current levels are equal to or higher than the previously observed levels, then the source may not have been controlled.

Issue 4: Determine groundwater flow entering west side of site. HST indicated that it no longer wants to install a new monitoring well. EPA will not contest this decision at this time, but notes that it will undercut HST's argument that contaminants are entering the site from sources outside of the property.

Issue 5: Soil sampling outside fence. EPA agreed to share its recent sampling results with HST. HST agreed to perform additional soil sampling, and will submit a sampling plan to EPA.

Issue 6: Soil sampling in "areas of concern". HST has agreed to perform sampling that addresses specified areas of concern at the Site. HST agreed to submit a plan for this sampling. My recollection of the June 26 call includes that HST also agreed to propose some less frequent sampling in between the areas of concern. This was not reflected in your letter. Please clarify if HST is willing to do this.

I do not believe that we discussed a time frame for these activities during the call, and I do not see a time frame proposed in your letter. Now that we have at least substantial agreement on these steps to move forward, please have HST propose a timetable to carry out each of the agreed activities.

If your client or consultant has any technical questions, please contact Brian Freeman. His telephone number is (312) 353-2720. Any legal inquiries should be addressed to me. My telephone number is (312) 886-6663.

Sincerely,



Andre Daugavietis
Associate Regional Counsel

cc: J. Garavanta, HST
B. Freeman, 9J
C. Spencer, MDEQ
P. Quackenbush, MDEQ

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July 9, 2002

VIA FACSIMILE & U.S. MAIL

Andre Daugavietis, Esq.
Office of Regional Counsel (C-14J)
United States Environmental Protection Agency, Region 5
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

Re: *Henkel Surface Technologies, RCRA (3008h)-05-2002-0004*

Dear Mr. Daugavietis:

This confirms the results of our telephone conference call on Wednesday, June 26, 2002, regarding the above-referenced matter, relating to Henkel Surface Technologies' ("HST") property in Morenci, Michigan ("Site"). Participating in the call on behalf of the U.S. Environmental Protection Agency ("EPA") were George Hamper, Brian Freeman, and you. Participating on behalf of HST were Jack Garavanta and Bob Budnik of HST, Glenn Young of Henkel Corporation, Jeff Bolin of The Dragoon Corporation, and me.

EPA explained that it had identified six objectives for an investigation of the Site. The following summarizes these six objectives and the outcome of our discussion about them.

Issue 1: Sediments in Bean Creek. EPA and HST agreed to defer any decision regarding this issue pending the outcome of the investigation agreed to for Issue 5 (see below).

Issue 2: Potential for volatile organic compounds ("VOCs") in shallow groundwater under the Site to migrate under Bean Creek. EPA agreed to HST's proposal to install piezometers to evaluate the hydraulic boundary conditions at Bean Creek to assess this issue. HST agreed to provide EPA with a proposed plan.

Issue 3: Confirm the source of the VOCs in the shallow groundwater under a portion of the Site. The parties did not agree on the necessity of installing a new upgradient well, as suggested by EPA, to try to locate the source of the VOCs that have been detected in one monitoring well, MW-3, at a level slightly above the applicable maximum contaminant levels ("MCLs"). However, HST agreed to re-sample monitoring wells MW-1 through MW-4 to determine the current levels of VOCs in the shallow groundwater under the Site. HST will

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Andre Daugavietis, Esq.

July 9, 2002

Page 2

submit a proposed plan to EPA for the re-sampling. The need, if any, for further action regarding this issue will be assessed following receipt and review of the analytical results. EPA indicated that, if the VOC levels are below the applicable MCLs, groundwater would no longer be considered an issue at the Site.

Issue 4: Determine the groundwater flow direction under the west side of the Site. It was agreed to use the historical groundwater monitoring data, the piezometer data, and the groundwater monitoring data from the proposed sampling round to determine groundwater flow.

Issue 5: Soil sampling for possible contamination outside the fence line, along the bank of Bean Creek. Brian Freeman stated that he had taken several soil samples from this area during his Site visit on May 22, 2002, and that the results showed a maximum of approximately 200 mg/kg each of chromium and lead, and 5 mg/kg of cadmium. No PCBs were detected. Brian agreed to share the documentation of the results with HST. HST agreed to perform additional soil sampling relating to this issue and to submit a work plan for EPA's review.

Issue 6: Soil sampling in area of alleged "unaddressed" areas of concern on the western portion of the Site, within the fence line. EPA informed HST that Martin Jacobson of the Michigan Department of Environmental Quality ("MDEQ") had provided new information that suggests that there may be reason to test soil for PCBs and metals in Area 6, Area 7, between Areas 6 and 7, and Area 2 (Area 4 was mentioned during our phone call, but Brian corrected this to Area 2 in a June 27, 2002 phone conversation). Since our call, Brian has sent HST this information. HST agreed to test these areas and agreed to submit a work plan for EPA's review.

Work plan. We anticipate that HST's proposed work plan for Items 2, 3, 5 and 6 will be submitted to EPA by July 19, 2002. EPA acknowledged that the work plan may include a request, with supporting explanation, not to test all Appendix 9 constituents as part of this work. HST will coordinate the sampling with EPA so that EPA may be present during the sampling and take split samples.

Summary: HST has agreed to address five of EPA's six concerns at this time. The information obtained will be reviewed by both parties to determine whether any additional steps are needed.

In addition, HST wishes to remind EPA that HST has committed to Peter Quackenbush of MDEQ to review the final soil sampling data for lead from the remediation of Area 6 in October 1999, and propose additional corrective action, if warranted.

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HONIGMAN MILLER SCHWARTZ AND COHN LLP

Andre Daugavietis, Esq.

July 9, 2002

Page 3

Thank you for your continuing cooperation in this matter. If you have any questions, please contact me.

Sincerely,

A handwritten signature in black ink, appearing to read 'Ken Gold', written over the word 'Sincerely,'.

Kenneth C. Gold

cc: ✓ George Hamper, USEPA
✓ Brian Freeman, USEPA
Jack Garavanta, Henkel Surface Technologies
Glenn Young, Esq., Henkel Corporation
Jeffrey Bolin, The Dragun Corporation

DET_B\333009.1

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LANSING, MICHIGAN
BINGHAM FARMS, MICHIGAN

June 11, 2002

VIA FACSIMILE

Andre Daugavietis, Esq. (C-14J)
Office of Regional Counsel
United States Environmental Protection Agency, Region 5
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

**Re: *Henkel Surface Technologies*
 *RCRA (3008h)-05-2002-0004***

Dear Mr. Daugavietis:

I am writing in response to your letter dated May 29, 2002, as well as in response to our meeting in Chicago on May 7, 2002, and the recent site meeting on May 22, 2002. First, I would like to thank you for the U.S. Environmental Protection Agency's (USEPA) recent efforts with respect to better understanding the current status of the Henkel Surface Technologies (HST) property located in Morenci, Michigan (the Property). I believe these meetings and information exchanges have been beneficial with respect to both HST's and USEPA's understanding of each other's positions.

During the recent meetings and as stated in your May 29, 2002 letter, USEPA has outlined five steps that it considers necessary to further evaluate the Property. While HST appreciates the intent of the steps, it does not concur that these steps are the best methods to address the underlying concerns posed by the USEPA. HST understands the USEPA's concerns to include (1) the potential for exposure to chemicals detected in shallow groundwater at the Property, (2) the potential for underflow of shallow groundwater beyond Bean Creek, and (3) the possibility of exposure to chemicals detected in on-site shallow groundwater via off-site drinking water wells.

Additionally, the USEPA is asking for investigations of (1) sediments in Bean Creek, (2) soil outside of the Property fence line on the embankment of Bean Creek, and (3) sampling at the west side of the site in areas outside of the solid waste management units (SWMUs). HST was informed by Mr. Freeman of USEPA during his recent site visit that he had collected four

Andre Daugavietis, Esq.
June 11, 2002
Page 2

soil samples adjacent to the west side of the SWMUs outside of the fence line (Items 4 and 5 of your May 29, 2002, letter). HST would need to review the data generated by these samples prior to committing to a sampling plan regarding these issues. The data generated by the samples collected by Mr. Freeman may provide information regarding the necessity for and/or the appropriate extent of additional sampling for these issues. HST's position, with respect to the issues relating to shallow groundwater, is discussed in the following text.

Potential Exposure to Chemicals Detected in Shallow Groundwater at the Property

Based on the previous testing conducted at the Property by HST, it has been HST's position that the chemicals detected in groundwater do not pose a risk to human health and the environment. The main basis for this position is analysis of the data in relation to risk-based cleanup criteria pursuant to Part 201 of Michigan's Natural Resources and Environmental Protection Act (NREPA; P.A. 451 of 1994, as amended). During this analysis, HST considered the most restrictive potential exposure pathways (i.e., drinking water and groundwater venting to Bean Creek).

Chemicals were detected in shallow groundwater at concentrations in excess of the Maximum Contaminant Levels (MCLs) pursuant to the Safe Drinking Water Act and drinking water criteria pursuant to Part 201 of the NREPA. With respect to the potential for exposure to the shallow groundwater, HST will record a deed restriction prohibiting groundwater use at the Property. Further, HST will record a deed restriction prohibiting residential development of the Property. HST fully expects the City of Morenci to support these deed restrictions, as the Property is currently zoned industrial. In addition, HST will resample monitoring well MW-3 to further document that the concentrations of chemicals of concern (i.e., trichloroethylene and its breakdown chemicals) in shallow groundwater do not pose an unacceptable exposure risk to human health and the environment.

As presented in previous reports, the concentrations of chemicals detected in the shallow groundwater do not exceed Part 201 cleanup criteria protective of groundwater venting to a surface water. I believe the EPA is in agreement that shallow groundwater venting to the stream does not present a concern.

Potential for Underflow of Shallow Groundwater Beyond Bean Creek

The USEPA has expressed concern that groundwater may be under-flowing Bean Creek. Under this scenario, it is Mr. Brian Freeman's contention that human receptors across Bean Creek could use the shallow groundwater and thus be exposed to the low levels of chemicals detected in shallow groundwater at the Property that do exceed MCLs. Mr. Freeman also

Andre Daugavietis, Esq.

June 11, 2002

Page 3

contends that the only way to determine if groundwater is under flowing Bean Creek is to determine shallow groundwater quality at a location across Bean Creek from the Property.

Based on hydrogeological information (thickness of the shallow groundwater unit, groundwater flow directions, etc.) generated at the Property and at a site located diagonally across Bean Creek (former Morenci Engineered Rubber Products), it remains HST's position that Bean Creek is a hydraulic boundary along the west side of the Property. This means that shallow groundwater at the Property discharges to Bean Creek and Bean Creek would be the only receptor of the low levels of chemicals detected in the groundwater. This information was discussed with Mr. Freeman and representatives of the Michigan Department of Environmental Quality (MDEQ) during the recent site meeting.

Mr. Freeman maintains that groundwater could underflow Bean Creek. Mr. Freeman's basis for this position, regardless of site-specific data, is that at one site in Ohio, that he was overseeing, chemicals were detected on the opposite side of a stream where the stream was considered a hydraulic boundary. HST recognizes that underflow can occur at some sites with the appropriate hydrogeologic conditions; however, these conditions do not occur at the Property. Furthermore, HST is surprised that based solely on inconsistent data at one site in Ohio, the USEPA takes the position that it cannot rely on site-specific data to make reasonable professional opinions.

To further document the hydraulic boundary characteristics of Bean Creek, HST will conduct piezometric testing of the static water levels of the shallow groundwater relative to the hydraulic head at Bean Creek (i.e., hydraulic gradient with respect to Bean Creek). It is HST's position that determining groundwater flow is superior to groundwater sampling because the groundwater flow analysis would determine if it is possible at this Property for the groundwater and associated chemicals of concern to underflow Bean Creek. This is not groundwater modeling; rather, it is a recognized hydraulic approach to test the conceptual model that has previously been presented in HST's position.

On the other hand, if groundwater quality were checked on the other side of Bean Creek and chemicals were detected; the detection could be from another source. Therefore, the investigation of the possibility of underflow would be necessary regardless.

Potential Exposure to Chemicals Detected in Shallow Groundwater in Off-site Water Wells

As previously discussed, the USEPA has expressed a concern that people could inadvertently be exposed to the chemicals in shallow groundwater via a shallow groundwater well. As previously discussed with the USEPA, the City of Morenci maintains water supply wells for the purpose of providing a municipal water supply to the residents. These wells are

Andre Daugavietis, Esq.

June 11, 2002

Page 4

screened in a deeper, well-confined aquifer. The Mayor of the City of Morenci indicated during the recent meeting at the Property that no shallow wells exist in the City of Morenci.

To provide additional confidence that potential receptors across Bean Creek will not be exposed to chemicals in the shallow groundwater, HST will conduct a search of MDEQ and health department files for residential water supply wells that have been drilled within Section 6 of Town 9 South, Range 2 East (approximately one square mile).

In summary, HST will complete the following to further address underlying concerns of the USEPA: (1) record a deed restriction regarding use of shallow groundwater at the Property, (2) record a deed restriction prohibiting residential use at the Property, (3) resample shallow groundwater in monitoring well MW-3, (4) install piezometers to evaluate the hydraulic boundary conditions at Bean Creek, and (5) conduct a survey of residential drinking water wells in the area.

Please call me at (313) 465-7394, if you have any questions regarding this information and to arrange our next meeting or telephone conference.

Sincerely,



Kenneth C. Gold

KCG/km

cc: Glenn Young, Esq., Henkel Corporation
Jack Garavanta, Henkel Surface Technologies
Brian Freeman, USEPA ✓
George Hamper, USEPA
Jeffrey Bolin, The Dragun Corporation



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION
WEST JACKSONVILLE, FL
CHICAGO, IL 60604-3881

REF: 3008h-05-2002-0004

C-14J

May 29, 2002

Kenneth C. Gold, Esq.
Honigman Miller Schwartz and Cohn LLP
660 Woodward Avenue
2290 First National Building
Detroit, Michigan 48226.

RE: Henkel Surface Technologies, RCRA (3008h)-05-2002-0004

Dear Mr. Gold:

I am writing to follow up on our meetings and discussions, as well as in response to your May 13, 2002 letter, which requested an informal conference on the Administrative Order. We would like to meet with Henkel in the next several weeks, if possible, to discuss the site and the site investigation and corrective action to be required under the Order.

Based on meetings held at the site on May 22, EPA plans to send Henkel a letter regarding the east side of the site and Mill Street stating that, based on current information, we are satisfied that no further site investigation or corrective action now needs to be done on the east side of the site or on the street. I hope that Henkel agrees that this is a very significant step by the Agency toward resolution of this matter on an agreed and reasonable basis.

Based on the current state of information about the site, the following are the minimum site investigation and corrective action steps we would require Henkel to agree to perform at the site:

- 1) Confirm through sample analysis that Bean Creek is a hydraulic boundary (this should be done through a monitoring well west of the creek instead of using a GW model); analyze the samples for metals, semi volatile organics, volatile organics and PCBs.

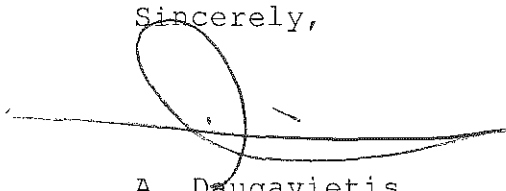
- 2) Sediment analysis of Bean Creek (for constituents listed in Appendix 9) outside and downstream of Areas 6 & 7; an upstream background sediment sample should also be taken;
- 3) Determine exact GW flow direction at the areas of concern at the site, and installation of a more suitably located background well up-gradient of MW3;
- 4) Soil analysis for constituents listed in Appendix 9 outside the fence lines on the embankment down to the Creek; and
- 5) Sampling for the presence of PCBs and volatile and semivolatile organics at the west side of the site outside the SMWUs. Reports indicated PCB contamination, and no removals from SMWUs other than Area 6 took place.

I hope that Henkel can see the merit in agreeing to take these steps. If so, we should be able to reach a negotiated resolution of this case.

Dates we propose for a meeting or telephone conference between the parties are June 6, June 11, or June 13.

In order to arrange a meeting or conference, and if you have any questions about this letter, please contact me. My telephone number is (312)886-6663. My e-mail address is "daugavietis.andre@epa.gov."

Sincerely,



A. Daugavietis
Associate Regional Counsel

cc: Jack Garavanta

bcc: Brian P. Freeman 9J ✓
George Hamper 9J

address for cc:

Jack Garavanta
Director, Regulatory Affairs and
Product Acceptance
Henkel Surface Technologies
Division of Henkel Corporation
32100 Stephenson Highway
Madison Heights, MI 48071



Andre Daugavietis

05/15/02 11:29 AM

To: Brian Freeman/R5/USEPA/US@EPA, George
Hamper/R5/USEPA/US@EPA

cc:

Subject: follow up with henkel - list of actions

george and brian: today i received a copy of henkel's "response and affirmative defenses to administrative order and request for hearing." i will get you copies. in additon, henkel requests an informal settlement conference.

as follow up to last week's meeting, and prep for a settlement conference, i propose to send henkel's atty our list of minumum necessary actions at the site. i would do this after the site visit.

as a start, here is the list from the meeting minutes memo. brian, please revise it for transmission to henkel. any nesssry actions that you spot next week should be added to the list.

- 1) Confirm through sample analysis that Bean Creek is a hydraulic boundary (this should be done through a monitoring well west of the creek instead of a GW model); **analyze samples for VOCs and PCBs**;
- 2) Sediment analysis of Bean Creek (for constituents listed in Appendix 9) outside and downstream of Areas 6 & 7; an upstream background sediment sample should also be taken;
- 3) Calculate exact GW flow direction at the areas of concern at the site, and installation of a more suitably located background well upgradient of MW3;
- 4) Soil analysis (**for constituents listed in Appendix 9**)? outside the fence lines on the embankment down to the Creek; and
- 5) Sampling for **PCBs and organics**? outside the SMWUs at the site, since the earlier reports indicated PCB contamination, and no removals from SMWUs other than Area 6 took place.

✓ Volatiles 8260B
Semi-volatiles
✓ metals 6010
pesticides/herbicides
PCBs
dioxins/furans

052

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LANSING, MICHIGAN
BINGHAM FARMS, MICHIGAN

May 13, 2002

VIA FEDERAL EXPRESS & U.S. MAIL

Regional Hearing Clerk
United States Environmental Protection Agency
77 W. Jackson Street, C-14J
Chicago, IL 60604

Re: RCRA 3008(h) Administrative Order, Henkel Surface Technologies, 322 West Main Street, Morenci, MI, EPA ID: MID 058 723 867, Docket No. RCRA-05-2002-0004

Dear Clerk:

Enclosed for filing please find Henkel Surface Technologies' Response and Affirmative Defenses to Administrative Order and Request for Hearing, and Proof of Service in the above-referenced matter. As required by Section XXII of the Administrative Order, a copy of the attached is also being sent to Andre Daugavietis, Esq., Office of Regional Counsel, U.S. EPA, Region 5.

Sincerely,



Kenneth C. Gold

KCG/krm

cc: Andre Daugavietis, Esq. U.S. EPA ✓
Jack Garavanta
Glenn W. Young, Esq.
Jeffrey A. Bolin

Enclosure

DET_B\326846.1

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5**

IN THE MATTER OF:)	
)	
Henkel Surface Technologies	)	Docket No. RCRA-05-2002-0004
A Division of Henkel Corp.)	
32100 Stephenson Highway	)	Proceeding under
Madison Heights, MI 48071	)	Section 3008(h) of the
	)	Resource Conservation and
U.S. EPA ID No.: MID 058 723 867	)	Recovery Act of 1976, as amended,
	)	42 U.S.C. §6928(h).
Respondent.)	
)	

**RESPONSE AND AFFIRMATIVE DEFENSES TO
ADMINISTRATIVE ORDER
AND REQUEST FOR HEARING**

Henkel Surface Technologies, a division of Henkel Corporation ("Henkel"), received the Administrative Order (the "Administrative Order") of the United States Environmental Protection Agency ("EPA") Region 5 in Docket No. RCRA-05-2002-0004 on April 15, 2002. Henkel requests a hearing in this matter as provided in Section XXII of the Administrative Order, Section 3008(b) of the Resource Conservation and Recovery Act, 42 U.S.C. § 6928(b), and in accordance with 40 C.F.R. Part 24 (2001). Because the Administrative Order requires Henkel to perform corrective measures in addition to an investigation, Henkel believes that the hearing procedures set forth in 40 C.F.R. Part 24, Subpart C apply to this matter. On this date, Henkel is also submitting a separate request for an informal settlement conference as provided in Section XXIII of the Administrative Order. In response to the Administrative Order, Henkel, by and through its attorneys, Honigman Miller Schwartz and Cohn, states as follows (references to "Sections" and "Paragraphs" within this response refer to the sections and paragraphs of the Administrative Order):

I. Jurisdiction

I. Answering Section I, Henkel states that Section I sets forth conclusions of law to which no response is required, and the cited authorities speak for themselves. Answering further, Henkel admits that it is the owner of the property known as 322 Main Street, Morenci, Michigan (the "Facility").

II. Parties Bound

II.A. Answering Paragraph II.A, Henkel states that Paragraph II.A is unnecessary because there is no basis for the Administrative Order.

II.B. Answering Paragraph II.B, Henkel states that Paragraph II.B sets forth a statement of law to which no response is required. Answering further, Henkel states that Paragraph II.B is unnecessary because there is no basis for the Administrative Order.

II.C. Answering Paragraph II.C, Henkel states that Paragraph II.C is unnecessary because there is no basis for the Administrative Order.

II.D. Answering Paragraph II.D, Henkel states that Paragraph II.D is unnecessary because there is no basis for the Administrative Order.

III. Statement of Purpose

III. Answering Section III, Henkel states that Section III is unnecessary because there is no basis for the Administrative Order. Answering further, Henkel states that it has already adequately investigated the nature and extent of any release of hazardous wastes and hazardous constituents at or from the Facility and determined that additional corrective action is unnecessary to prevent or mitigate any migration or releases of hazardous wastes or hazardous constituents at or from the Facility.

Answering more specifically, extensive investigation of the Facility has been conducted in conjunction with the Michigan Department of Environmental Quality ("MDEQ") Waste Management Division with respect to evaluating the release of hazardous waste and hazardous constituents. Documents reflective of these investigations are shown in the following table:

Date	Report Name	Prepared By
11/8/82	Letter Report - Preliminary Hydrogeologic Assessment, Parker Surface Treatment Products, Occidental Chemical Corporation, Morenci, Michigan	D'Appolonia Consulting Engineers, Inc.
12/30/83	Letter Report - Hydrogeologic Assessment, Parker Surface Treatment Products, Occidental Chemical Corporation, Morenci, Michigan	D'Appolonia Consulting Engineers, Inc.
February, 1988	Environmental Sampling Plan of the Parker Chemical Facility, Henkel Corporation Parker + Amchem	Huff & Huff, Inc.
October, 1989	Groundwater Monitoring Summary Report for Parker + Amchem, Morenci, Michigan	Dell Engineering, Inc.
3/30/90	Closure and Certification Parker + Amchem Storage Facility, Morenci, Michigan	Testing Engineers & Consultants, Inc.
11/24/1993 Revised	Closure Plan - Henkel Corporation, Parker + Amchem, Morenci, Michigan MID 058 723 867	The Dragun Corporation
1/31/95	Interim Soil Report - Closure Activities, Parker Amchem, Hazardous Waste Storage Pads, Morenci, Michigan Facility MID 058 723 867	The Dragun Corporation
3/16/95	Groundwater Investigation Report - Closure Activities, Draft, Parker Amchem, Hazardous Waste Storage Pads, Morenci, Michigan Facility MID 058 723 867	The Dragun Corporation
3/27/95	Groundwater Investigation Report - Closure Activities, Parker Amchem Hazardous Waste Storage Pads, Morenci, Michigan Facility MID 058 723 867	The Dragun Corporation
10/22/97	Soil Characterization Report, Henkel Surface Technologies Facility, Morenci, Michigan MID 058 723 867	The Dragun Corporation
4/22/98	Work Plan - Groundwater Sampling, Henkel Surface Technologies Facility, Morenci, Michigan MID 058 723 867	The Dragun Corporation
1/28/99	Groundwater Sampling, Henkel Surface Technologies Facility, Morenci, Michigan MID 058 723 867	The Dragun Corporation
2/14/00	Limited Soil Removal Report, Henkel Surface Technologies Facility, Morenci, Michigan MID 058 723 867	The Dragun Corporation

2/26/01	Work Plan – Groundwater Sampling, Henkel Surface Technologies Facility, Morenci, Michigan MID 058 723 867	The Dragoon Corporation
8/30/01	June 2001 Groundwater Sampling, Henkel Surface Technologies Facility, Morenci, Michigan MID 058 723 867	The Dragoon Corporation

Based on the results of these investigations, Henkel has demonstrated that (1) the limited area of groundwater contamination at the Facility is not a threat to migrate off-site at levels above cleanup criteria established by MDEQ under Part 201 of the Natural Resources and Environmental Protection Act; (2) EPA has explicitly accepted MDEQ's Part 201 criteria as an appropriate basis for cleanups, and EPA's own RCRA corrective action guidance encourages land-use based cleanups; and (3) the concentrations of the chemicals detected in groundwater do not pose a current or future risk to human health or the environment. Therefore, any search for the source of these chemicals would not reveal information that would lead to a reduction in risk but would be a needless waste of resources.

IV. Findings of Fact

IV.A. Answering Paragraph IV.A, Henkel states that Paragraph IV.A sets forth conclusions of law to which no response is required, and the cited authorities speak for themselves.

IV.B. Answering Paragraph IV.B, Henkel states that it acquired the Facility from Ford Motor Company when Henkel purchased Ford's Parker Chemical division in April 1987. Upon information and belief, Henkel believes that, prior to Ford, the Facility was operated by Oxy Metal Corporation and Hooker Chemical, but denies that any practices of the previous operators of the Facility can be imputed to Henkel.

IV.C. Answering Paragraph IV.C, Henkel admits that it is the owner of the property located at 322 Main Street, Morenci, Michigan 49256 (i.e., the Facility). Answering further, Henkel denies that it filed a Part A application for the property. Answering further, Henkel states that the balance of Paragraph IV.C sets forth conclusions of law to which no response is required, and the cited authority speaks for itself.

IV.D. Answering Paragraph IV.D, Henkel states that Paragraph IV.D sets forth conclusions of law to which no response is required, and the cited authorities speak for themselves.

IV.E. Answering Paragraph IV.E, Henkel states that it lacks information or knowledge sufficient to form a belief as to the truth of the factual allegations in Paragraph IV.E and leaves Complainant to its proofs.

IV.F. Answering Paragraph IV.F, Henkel states that it lacks information or knowledge sufficient to form a belief as to the truth of the factual allegations in Paragraph 12 and leaves Complainant to its proofs.

IV.G. Answering Paragraph IV.G, Henkel admits that the Facility is located on approximately 10 acres of land with an address of 322 W. Main Street, Morenci, Michigan and is bounded on the western edge by Bean Creek. Answering further, Henkel states that it lacks information or knowledge sufficient to form a belief as to how the property has been characterized, and by whom, and leaves Complainant to its proofs.

IV.H. Answering Paragraph IV.H, Henkel admits that the map included in Paragraph IV.H accurately depicts seven areas formerly used for waste storage at the Facility. Complainant's allegation that these areas constitute "solid waste management units" or "areas of concern" is a conclusion of law to which no response is required. Answering further, Henkel

denies that other areas of the Facility, or Bean Creek, may be characterized as constituting or containing solid waste management units or areas of concern or otherwise warrant investigation.

IV.I. Answering Paragraph IV.I, Henkel states that it lacks information or knowledge sufficient to form a belief as to the factual allegations in Paragraph IV.I and leaves Complainant to its proofs. Answering further, Henkel states that the City of Morenci's Wellhead Protection Plan demonstrates that the aquifer is fully protected as a water supply source for the City.

IV.K. Answering Paragraph IV.K (the Administrative Order lacks a Paragraph IV.J), Henkel states that it lacks information or knowledge sufficient to form a belief as to the factual allegations in Paragraph IV.K and leaves Complainant to its proofs, and the referenced Michigan Department of Natural Resources documents speak for themselves. Answering further, based on Complainant's own Paragraph IV.L of the Administrative Order, the issues raised in and prior to 1982 have already been resolved and settled. According to Paragraph IV.L, Complainant issued a Consent Agreement and Final Order ("CAFO") dated July 5, 1983 (Docket No. V-W-82-R-021), which required payment of a penalty of \$25,000. Based on information and belief, the CAFO also required performance of certain actions, including corrective action, for the matters raised by Complainant in Paragraph IV.K, which a predecessor of Henkel performed.

Answering further, Henkel states that, with respect to subparagraph (a), any facts that may have existed in 1982 are not relevant to determining whether the Facility poses a current threat to human health or the environment, especially because of the significant investigation and remedial work that has been performed since that time that demonstrate that no such threats exist. In addition: (i) an October 27, 1982 MDNR interoffice communication stated that "the site has been cleaned up and no immediate threats exist. No additional steps need to be taken;" (ii) MDNR RCRA inspection reports from 1983 and 1984 found no violations; and (iii) an MDNR

RCRA inspection report, dated August 6, 1987, states that "this inspection revealed that your facility was in compliance with the RCRA requirements evaluated at the time of the inspection."

Answering further, Henkel states that, with respect to subparagraph (b), any facts that may have existed in 1982 are not relevant to determining whether the Facility poses a current threat to human health or the environment, especially because of the significant investigation and remedial work that has been performed since that time that demonstrate that no such threats exist. Answering further, Henkel fully investigated soil and groundwater in Area 6 (results discussed in the January 31, 1995 Interim Soil Report). The investigation included VOCs, chromium, zinc, copper and lead. Henkel concluded that lead in excess of residential direct contact criteria was the only substance of concern in the soil in Area 6 and, in 1999, fully addressed any risk posed by the lead by removing approximately 1,560 cubic yards of soil.

Answering further, Henkel states that, with respect to subparagraph (c), any evaporation of chemicals to the atmosphere in 1982 is not relevant to determining whether the Facility poses a current threat to human health or the environment, especially because of the significant investigation and remedial work that has been performed since that time that demonstrate that no such threats exist.

Answering further, Henkel states that, with respect to subparagraph (d), the two samples in which PCBs were detected in Area 2 in June 1982 were of "oily residue soaked into the leaves and dirt" on the concrete pad in Area 2, and not of "soil." The source of the oily residue was determined to be a leaking hydraulic oil cylinder on a piece of construction equipment at the Facility and that PCBs were not used, stored or manufactured at the Facility. An EPA PCB compliance inspection conducted on July 27, 1982, found no PCB-related violations and that PCBs were not detected in samples of transformer dielectric fluid or hydraulic dock leveler oil.

Further, in April 1994, it took two soil samples adjacent to the concrete pad in Area 2 and the results for PCBs were "non-detect" (method detection limit was 330 ug/kg).

Answering further, Henkel states that, with respect to subparagraph (e), Henkel has owned the Facility since 1987 and since that time has been fully cooperative and accurate in answering questions and providing information to MDEQ and EPA on a timely basis. Any lack of cooperation by any prior owner of the Facility cannot be imputed to Henkel.

Answering further, Henkel states that, with respect to subparagraph (f), the City of Morenci's Wellhead Protection Plan documents that the municipal wells of Morenci are fully protected from any contamination that may have occurred at the Facility, and that any facts that may have existed in 1985 are not relevant to determining whether the Facility poses a current threat to human health or the environment, especially because of the significant investigation and remedial work that has been performed since that time that demonstrate that no such threats exist.

IV.L. Answering Paragraph IV.L, Henkel states that it lacks information or knowledge sufficient to form a belief as to the factual allegations in Paragraph IV.L and leaves Complainant to its proofs. Answering further, Henkel states that the CAFO referenced in this paragraph indicates that Complainant has already obtained from a predecessor of Henkel the performance of all response action required for the alleged issues noted in Paragraph IV.K. Complainant cannot seek a repeat of essentially the same remedy from Henkel. Answering further, Henkel states that any enforcement action that may have occurred in 1982 is not relevant to determining whether the Facility poses a current threat to human health or the environment, especially because of the significant investigation and remedial work that has been performed since that time that demonstrate that no such threats exist. Henkel acquired the Facility from Ford when

Henkel purchased Ford's Parker Chemical division in April 1987. Any improper storage, treatment or disposal practices of a prior owner cannot be imputed to Henkel.

IV.M. Answering Paragraph IV.M, Henkel states that it lacks information or knowledge sufficient to form a belief as to the factual allegations in Paragraph IV.M and leaves Complainant to its proofs, and the referenced PA/VSI report speaks for itself. Answering further, Henkel states that any facts that may have existed in 1986 are not relevant to determining whether the Facility poses a current threat to human health or the environment, especially because of the significant investigation and remedial work that has been performed since that time that demonstrate that no such threats exist.

IV.N. Answering Paragraph IV.N, Henkel states that Paragraph IV.N is in error by claiming that Henkel's consultant, The Dragun Corporation ("Dragun") prepared a report dated February 6, 2001. Rather, Dragun prepared a work plan for groundwater sampling dated February 26, 2001 – approved by Complainant on June 4, 2001 – and a Groundwater Sampling Report dated August 30, 2001. Answering further, Henkel states that the referenced work plan, report and the referenced 1992 closure report speak for themselves. Answering further, Henkel admits that soil removals took place between August and October 1999.

IV.O. Answering Paragraph IV.O, Henkel admits that in August 1998 MDEQ and Dragun conducted sampling on three monitoring wells installed earlier by D'Appolonia, Inc.

Answering further, Henkel admits that certain chlorinated volatile organic compounds ("VOCs") were detected in groundwater at concentrations slightly exceeding the maximum contaminant levels ("MCLs"). Answering further, Henkel denies that such detections indicate the presence of a threat to human health or the environment because the VOCs were present in a shallow aquifer that is not used for drinking water supply and, as presented by the City of

Morenci's Wellhead Protection Plan, the underlying drinking water supply aquifer is fully protected. Furthermore, Henkel has proposed imposing on the Facility a restrictive covenant prohibiting well installation or use of shallow groundwater on the Facility, which would preclude potential ingestion of water from this shallow aquifer. Accordingly, exposure via drinking water is not applicable and comparison of the data to MCLs is not appropriate for the Facility.

Answering further, Henkel denies that copper was detected in groundwater in excess of the applicable MCL. Rather, Henkel's data from the testing (reported January 28, 1999) reveals no detectable dissolved copper (less than 0.025 mg/L, as compared to the MCL for copper of 1.3 mg/L).

Answering further, Henkel states that Dragun's second round of groundwater sampling for VOCs occurred in June 2001, and not August 2001, as stated in the Administrative Order. The results of the sampling were presented in a report dated August 30, 2001.

Answering further, Henkel denies that, as between the August 1998 and June 2001 sampling events, vinyl chloride on average increased by 1 part per billion. To the contrary, Henkel's data shows a decrease in vinyl chloride concentration from 10 ug/L to 6.5 ug/L. Even if there had been an increase, Henkel denies EPA's inference that vinyl chloride is increasing from degrading DCE and states that such inference is unsubstantiated in light of the fact that the method detection limit is 1 part per billion. The variability of sample concentration of 1 part per billion between two sampling events is insignificant with respect to making statements of degradation.

Answering further, Henkel admits that total metals were not analyzed in the August 2001 sampling event (except that the sampling event was in June 2001). Answering further, Henkel states that MDEQ issued a letter dated March 8, 1999 stating that the groundwater sampling

presented in the January 1999 Groundwater Sampling Report addressed the issue of metals in groundwater and that "Type B" criteria were met. Therefore, testing of metals was not required during the June 2001 sampling. Furthermore, the June 2001 sampling event was conducted at the request of the EPA for the sole purpose of evaluating VOCs in groundwater – not metals. The Work Plan dated February 26, 2001 was approved by the EPA.

Answering further, Henkel admits that PCBs and semi-volatile compounds were not analyzed in either sampling event. However, these chemicals were previously addressed in earlier investigations and were no longer considered chemicals of concern by MDEQ.

IV.P. Answering Paragraph IV.P, Henkel admits that it received letters dated October 15, 1999 and May 2, 2000 from Complainant. Answering further, Henkel states that the letters speak for themselves. Answering further, Henkel admits that Complainant and Henkel discussed a potential voluntary agreement and that no agreement was reached. Answering further, Henkel states that, during a meeting on December 7, 2000, Complainant had advised it that, after Henkel's performance and Complainant's review of the results of the agreed-upon groundwater sampling event (which led to the August 30, 2001 Groundwater Sampling Report), the parties should discuss whether a voluntary agreement was necessary. After its receipt of the August 30, 2001 Groundwater Sampling Report, Complainant rejected Henkel's requests to hold the agreed-upon discussions and instead issued the Administrative Order. Answering further, Henkel denies that the Administrative Order is necessary to provide for timely corrective action at the Facility, because the investigation and analysis work already performed by Henkel and submitted to Complainant provide the information necessary to demonstrate that the Facility poses no threat to human health or the environment.

IV.Q. Answering Paragraph IV.Q, Henkel states that it lacks information or knowledge sufficient to form a belief as to the factual allegations in Paragraph IV.Q and leaves Complainant to its proofs. Answering further, Henkel states that, although some of the listed chemicals may have been present at the Facility during Facility operations, many of the listed chemicals have not been detected or have been detected at levels below applicable MDEQ cleanup criteria during the numerous soil and groundwater investigations at the Facility.

IV.R. Answering Paragraph IV.R, Henkel admits that the Facility is generally located in a developed area of Morenci, Michigan; that the Facility is bordered on the west by Bean Creek; and that groundwater flow from the Facility is toward the creek. Answering further, Henkel states that Bean Creek forms a hydraulic boundary with respect to shallow groundwater at the Facility, and as such, the shallow groundwater at the Facility vents into Bean Creek. Groundwater investigations at the Facility show that chemicals present in the groundwater do not exceed cleanup criteria pursuant to Part 201 relating to groundwater-surface water interface ("GSI").

IV.S. Answering Paragraph IV.S, Henkel states that it lacks information or knowledge sufficient to form a belief as to the factual allegations in Paragraph IV.S and leaves Complainant to its proofs. Answering further, for the reasons set forth elsewhere in this Answer, Henkel denies that the actions ordered below, at and around the Facility are necessary to protect human health and the environment.

IV.T. Answering Paragraph IV.T, Henkel states that subparagraphs A, B, C and D of Paragraph IV.T set forth conclusions of law to which no response is required, and the cited authorities speak for themselves. Answering further, for the reasons set forth elsewhere in this Answer, Henkel denies that the actions required by the Administrative Order are necessary to

develop information about the extent of hazardous waste contamination of the Facility or soils and groundwater around and near the Facility, or that the actions required by the Administrative Order are necessary to protect human health, welfare and the environment. Answering further, Henkel states that the investigation and analysis work already performed by Henkel and submitted to Complainant provide the information necessary to demonstrate that the Facility poses no threat to human health, welfare or the environment.

[There is no Section V in the Administrative Order]

Sections VI Through XXV

Answering Sections VI through XXV, Henkel incorporates its answers to Sections I through IV herein by reference, and states that, based on such answers, there is no need for the work required by, or any of the other provisions set forth in, Sections VI through XXV of the Administrative Order.

Without waiving its objection to Sections VI through XXV in their entirety, Henkel also states as follows:

VI.A. In Paragraph VI.A, it is arbitrary and unreasonably burdensome to require Henkel to submit to Complainant a "Description of Current Conditions" report within 45 days of the effective date of the Administrative Order. There is no need for this document to be submitted within such a short time frame in this matter, and Henkel believes that considerably more time will be needed to submit this document. Rather, such report should be permitted to be submitted within 180 days after the effective date of the Administrative Order.

VI.D In Paragraph VI.D, it is arbitrary and unreasonably burdensome to require Henkel to submit to Complainant a "Corrective Measures Implementation Program Plan" within 30 days of Henkel's receipt of notification of Complainant's selection of the corrective measure. Again,

there is no need for this document to be submitted within such a short time frame in this matter, and Henkel believes that considerably more time will be needed to submit this document. Rather, such plan should be permitted to be submitted within 120 days after receipt of such notification.

VI.G. In Paragraph VI.G, it is arbitrary and unreasonably burdensome to require Henkel to submit to Complainant monthly written progress reports. Rather, such reports should be permitted to be submitted on a quarterly basis.

VI.K. In Paragraph VI.K, it is arbitrary, unreasonably burdensome and not authorized by law to require that all work performed under the Administrative Order be under the direction and supervision of a professional engineer or geologist with expertise in hazardous waste site cleanups. Henkel submits that it would be sufficient for the work to be under the supervision of an environmental scientist with such expertise.

IX.A. In Paragraph IX.A, Complainant's access rights should be limited to reasonable times, and upon reasonable notice, and upon presentation of appropriate identification. Further, Complainant should provide Henkel with copies of all photographs, data or other information collected by Complainant pursuant to this paragraph.

X.B. In Section X.B, fourteen days' advance notice before field activities is unnecessarily burdensome. Henkel submits that seven days' notice is adequate. Further, this notice provision should include a provision authorizing Complainant to waive the notice requirement by telephone.

XI. In Section XI, it is arbitrary and unreasonably burdensome to require Henkel to ensure that agents and contractors comply with the record preservation requirements with respect to records not in Henkel's possession or control.

XVIII. In Section XVIII, there is no legal authority for requiring Henkel to indemnify the United States for any purpose.

XIX. In Section XIX, Henkel denies that \$10,000,000 is an appropriate amount for financial responsibility. Answering further, Henkel states that it is arbitrary and unreasonably burdensome to require financial assurance of \$10,000,000 and that this sum far exceeds the potential need.

XX.A. In Paragraph XX.A, any modifications to the Administrative Order must be subject to Henkel's rights to appeal same.

XXIV. In Section XXIV, Complainant's issuance of the written notice should not be unreasonably denied or delayed.

XXV. In Section XXV, there is no legal basis on which Complainant may unilaterally issue a permit to Henkel for this closed, non-operating Facility.

To the extent that Sections VI through XXV may be determined to be valid, Henkel reserves the right to raise other specific objections to the provisions of these sections.

Attachments I through IV

Answering Attachments I through IV, Henkel incorporates its answers to Sections I through XXV herein by reference, and states that, based on such answers, there is no need for the work required by, or any of the other provisions set forth in, Attachments I through IV of the Administrative Order. To the extent that Attachments I through IV may be determined to be valid, Henkel reserves the right to raise other specific objections to their provisions.

Affirmative Defenses and Facts to Be Placed At Issue

Henkel incorporates its answers to Sections I through XXV and Attachments I through IV herein by reference and further states as follows:

1. The Administrative Order was not properly served on Henkel.
2. The Administrative Order fails to state a claim upon which relief may be granted.
3. Complainant is barred from issuing the Administrative Order by the principles of settlement, contract law, accord and satisfaction, res judicata, collateral estoppel, and similar doctrines, because Complainant and Henkel's predecessor at the Facility already fully resolved the matters raised in the 1982 inspection reports upon which the Administrative Order is based, and there is no evidence of subsequent contamination which would justify issuance of the Administrative Order – rather, all evidence indicates the contrary.
4. The Administrative Order is not authorized under RCRA or any other applicable legal authority. By way of example and not limitation, RCRA Section 3008(h), 42 U.S.C. § 6938(h)(1), which is Complainant's purported authority for the Administrative Order, applies only to "a facility authorized to operate under section 6925(e) of this title." Because the Facility was permanently shut down in 1990 and demolished in 1991, it no longer can be said to be authorized to operate under section 6925(e) of RCRA and, therefore, RCRA Section 3008(h) no longer applies to it and cannot serve as a basis for the Administrative Order.

By way of further example, Complainant's effort to require Henkel to take any corrective action with respect to Bean Creek or any other off-site location must fail because Complainant has failed to demonstrate that any off-site location is contaminated and, if so, whether such contamination was caused by activities properly attributable to Henkel.

5. The Administrative Order is not supported by the administrative record. By way of example and not limitation, Complainant in issuing the Administrative Order did not take into account the 1983 CAFO between Complainant and Henkel. Further, Complainant did not take into account the information provided by Henkel to MDEQ regarding the Facility since at least 1993, which information has been available to Complainant since that time and which, Henkel understands, Complainant has recently (after issuance of the Administrative Order) placed into the administrative record.
6. The Administrative Order is arbitrary, capricious and an abuse of discretion.
7. The Administrative Order should include provisions authorizing project managers to extend deadlines up to 90 days without management approval; for dispute resolution; for force majeure/excusable delay; and other appropriate provisions consistent with Complainant's practice in other RCRA corrective action matters, decisions of the Environmental Appeals Board and other applicable authority.
8. Henkel intends to place at issue every factual allegation not admitted herein.

Henkel reserves the right to assert additional affirmative defenses at any time prior to hearing in this matter.

Conclusion

For the foregoing reasons, Henkel requests a hearing in this matter and that the Administrative Order be dismissed.

HONIGMAN MILLER SCHWARTZ AND COHN

By: 
Kenneth C. Gold

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Detroit, Michigan 48226-3583

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Fax (313) 465-7395
E-mail kzg@honigman.com

Dated: May 13, 2002

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**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5**

IN THE MATTER OF:

Henkel Surface Technologies
A Division of Henkel Corp.
32100 Stephenson Highway
Madison Heights, MI 48071

U.S. EPA ID No.: MID 058 723 867

Respondent.

Docket No. RCRA-05-2002-0004

Proceeding under
Section 3008(h) of the
Resource Conservation and
Recovery Act of 1976, as amended,
42 U.S.C. §6928(h).

PROOF OF SERVICE

STATE OF MICHIGAN)

) ss.

COUNTY OF WAYNE)

KAREN R. NITTA, being duly sworn, deposes and says that on this 13th day of May, 2002,
she did serve a copy of:

1. Response and Affirmative Defenses to Administrative Order and Request for
Hearing; and

2. Proof of Service

upon the following persons via Facsimile and U.S. Mail:

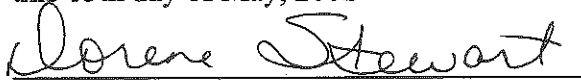
Regional Hearing Clerk (C-14J)
U.S. Environmental Protection Agency
Region 5
77 West Jackson Boulevard
Chicago, IL 60604-3590

Andre Daugavietis, Esq. (C-14J)
Office of Regional Counsel
U.S. Environmental Protection Agency
Region 5
77 West Jackson Boulevard
Chicago, IL 60604-3590

Further deponent sayeth not.


Karen R. Nitta

Subscribed and sworn to before me
this 13th day of May, 2002


Notary Public, Wayne County, Michigan
My Commission Expires: 10/17/04

Dorene Stewart
Notary Public, Wayne County, Michigan
My Commission Expires October 17, 2004

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See E-mail
Brian: Please check the bolded language, and make sure the report matches your recollection of the meeting. -Arden 5/14

AD comments 5/14. Check bold areas.

U.S. Environmental Protection Agency

Region 5

Date: May 9, 2002

To: Henkel Corrective Action File

From: Brian P. Freeman, Project Manager

Subject: Minutes of Meeting with Henkel Corporation regarding the April 10 3008h Administrative Order

On May 7th, 2002 at 10:45 am, representatives of Henkel Corporation met with representatives of the U.S. EPA to discuss the Administrative 3008h Order issued on April 10, 2002, involving the Henkel site in Morenci, Michigan.

Henkel Corporation was represented by:

Jack Garavanta, Director of Regulatory Affairs and Product Acceptance, Henkel Corp.

Glenn W. Young, Corporate Attorney for Henkel Corp.

Kenneth C. Gold, Attorney representing Henkel from Honigman, Miller, Schwartz and Cohn, LLP.

Jeffrey A. Bolin, CHMM, Environmental Scientist from Dragun Corp.

The U.S. EPA was represented by:

Brian P. Freeman, ECAB, Corrective Action Project Manager for the Henkel Facility

George Hamper, ECAB Section Chief

Andre Daugavietis, Attorney, Associate Regional Counsel, Region 5

The U.S. EPA representatives opened, welcoming Henkel representatives to Region 5, reiterating that meeting was being held so that Henkel could add any relevant information or address data gaps in the Order. A sign-in sheet was passed around the room, which all parties signed, and were later given copies. Business cards were also exchanged. Jack Garavanta opened by stating that his group had a car picking them up, in order to head to the airport at 12:45pm, and hoped that we would be able to conclude the agenda by then.

Garavanta gave a brief description of the Henkel Morenci facility, for those in the room who may have not have been familiar with it. **The site is 11 acres and was acquired by Henkel in 1987 from Ford. The buildings on the site were demolished in 1990.** He stated that there is another parcel of property east of the fence line which has never been developed, in addition to the site property within the fence line. He then stated that the City of Morenci, Michigan is interested in purchasing and redeveloping the site property, and that the facility was right in the middle of town. He stated that the City of Morenci has already re zoned the eastern portion of the property as "light industrial". He stated that there was only one hazardous waste "area" on our maps of the Henkel facility which was on this eastern portion of the site, and that that area had been cleared by MDEQ. He stated that the western fence line running parallel to Bean Creek was on the site's property line. Brian Freeman asked who owned the land on the embankment to Bean Creek outside the fence line. Garavanta and Jeff Bolin of Dragun stated that Bean Creek was "State Water" and they surmised that Michigan owned it. **Henkel representatives seemed**

unsure about exactly where the property line is in relation to the fence and the creek.

Garavanta mentioned that the final report for the Container Storage Area of the facility (known as Area 6) was submitted to MDEQ in 2000. Bolin stated that the soils of Area 6 has been removed (about 3 feet deep by an area of about 80' by 100') to meet MDEQ residential standards for human health risk for lead (400 parts per million), and that the company has demonstrated to MDEQ that no risk to human health remains on the site. He also stated that TCLP tests had been conducted for lead and chromium, and no leaching risks existed at the facility to groundwater.

Freeman queried about the elevated levels of TCE, DCE and Vinyl Chloride in MW3, and stated that there must be a source on site for this contamination of groundwater, since the only up-gradient well (MW2) is free of contamination. Garavanta responded that he knew that no TCE had been used at the facility since 1986, but he didn't know about before this time. Garavanta and Bolin stated that they felt there **may be** an up gradient source of the contamination from off site, **perhaps from a gas station or auto shop.** Freeman stated that there was **currently** no accurate way to reach at conclusion that there is an offsite source, and that the direction of groundwater flow indicates a more accurate placement site for a background well. Bolin and Garavanta made the point that institutional controls such as a deed restriction could be put in place to prohibit use of groundwater on the site. Bolin and Garavanta then made the point that they felt that no one's health was in danger since no one used the shallow aquifer as a water supply. **EPA is concerned also with potential groundwater users off-site.**

Freeman queried about the wellhead study for the City of Morenci supplied as additional information, along with the other soil and groundwater studies supplied by Dragun for Henkel. Bolin answered that it was supplied so that EPA could see that the City of Morenci has it's own water supply that comes from a bedrock aquifer nearly 200 feet below ground surface. Freeman queried how they (Henkel or Dragun) know for sure that everyone was on the municipal water supply. Freeman and Hamper cited examples from their hometown where some homes in certain areas of town were on private wells, even though the City had its own water supply. Bolin stated that it would be very easy to run a study to see if there were any private well users, but Bolin and Garavanta stated that they weren't aware of any private well users. They added that a similar restriction could be placed on shallow aquifer use.

Bolin stated that the site does not exceed MDEQ "venting" criteria for groundwater emissions into the creek. He stated that MDEQ allows use of a "mixing zone" in the waterway, but that Henkel has not had to utilize that. Bolin expressed a belief that the creek serves as a hydrological barrier .

Hamper stated that it is EPA policy to restore groundwater to "maximum beneficial use." EPA representatives made it clear to the company that the Agency wants to see the company address the source of the groundwater contaminants.

Freeman asked whether any testing had been done for PCBs or VOCs in Area 6. Bolin stated that no VOCs were found in Area 6, and PCBs were not ever handled in that area. Freeman then produced pictures of overturned and leaking drums against the fence, and brought up the MDEQ (MDNR) inspection records from the 1980s, analyses from which showed elevated levels of

PCBs. Hamper asked if TCE could have been in some of the drums. Hamper added that it appears from the EPA CERCLA program and MDEQ photos and records that all six areas may have been drum storage areas.

Bolin stated that PCBs were only found to exist in Area 2, and that they may have come from some construction equipment from leaks of hydraulic fluid or oil. He stated that the company took 6-8 samples in Area 2 after the pad had been removed and found no contamination. Freeman responded that Dragun's report only cited 2 samples. Freeman stated further that 2 samples are not a sufficient number to consider an area clean. Kenneth Gold of Honigman Miller et. al. expressed an opinion that it only makes sense to start taking samples "where the action" was, and if nothing was found, that no "grid" needed to be developed. A discussion then ensued as to what the provisions of RCRA section 3008h covered, vs. State of Michigan RCRA closure requirements.

Regarding the value of grid sampling, the EPA representatives indicated a belief that there is still a source of TCE on site, and that it hasn't been found. Hamper and Freeman made the point that MW3 couldn't have contamination unless there was a hot spot or plume somewhere. Hamper stated that "there is groundwater contamination, and you haven't discovered the source". In addition, Freeman stated that he was concerned that drum leakage and runoff from areas 2,5,6 and 7 may have escaped past the fenceline and down the embankment to the creek. He added that no information was yet known about the creek sediments, nor the area outside the fence line.

Bolin and Gold expressed an opinion that, as far as the company knows, based on the data Dragun has provided to EPA and to MDEQ, the site land has been sufficiently cleaned up that it is fit for residential usage. Garavanta interjected that the company had submitted Dragun's information and paperwork required for closure in 2000 to MDEQ, but that they haven't heard from MDEQ yet. EPA plans to follow-up with MDEQ regarding RCRA closure status of the "areas" on the site.

Discussion was held on the debris in the area on the creek bank from a dairy which operated in the area over 80 years ago, which Henkel feels contributed to the contamination there. **Freeman expressed concern over whether hazardous substances had spilled or migrated through the fence or under the fenceline to the creek banks. Bolin stated that they had not sampled on the site near the fence, but had not sampled any soils outside of the fence.**

Shortly before it was time for the Henkel representatives to leave, there was discussion about items that the EPA wants Henkel to do to begin moving forward. EPA representatives set forth that the following should be included in a course for any future actions at the site:

- 1) Confirm through sample analysis that Bean Creek is a hydraulic boundary. Freeman stated that this should be through a monitoring well west of the creek instead of a GW model;
- 2) Sediment analysis of Bean Creek for Appendix 9 outside and upstream of Areas 6 & 7;

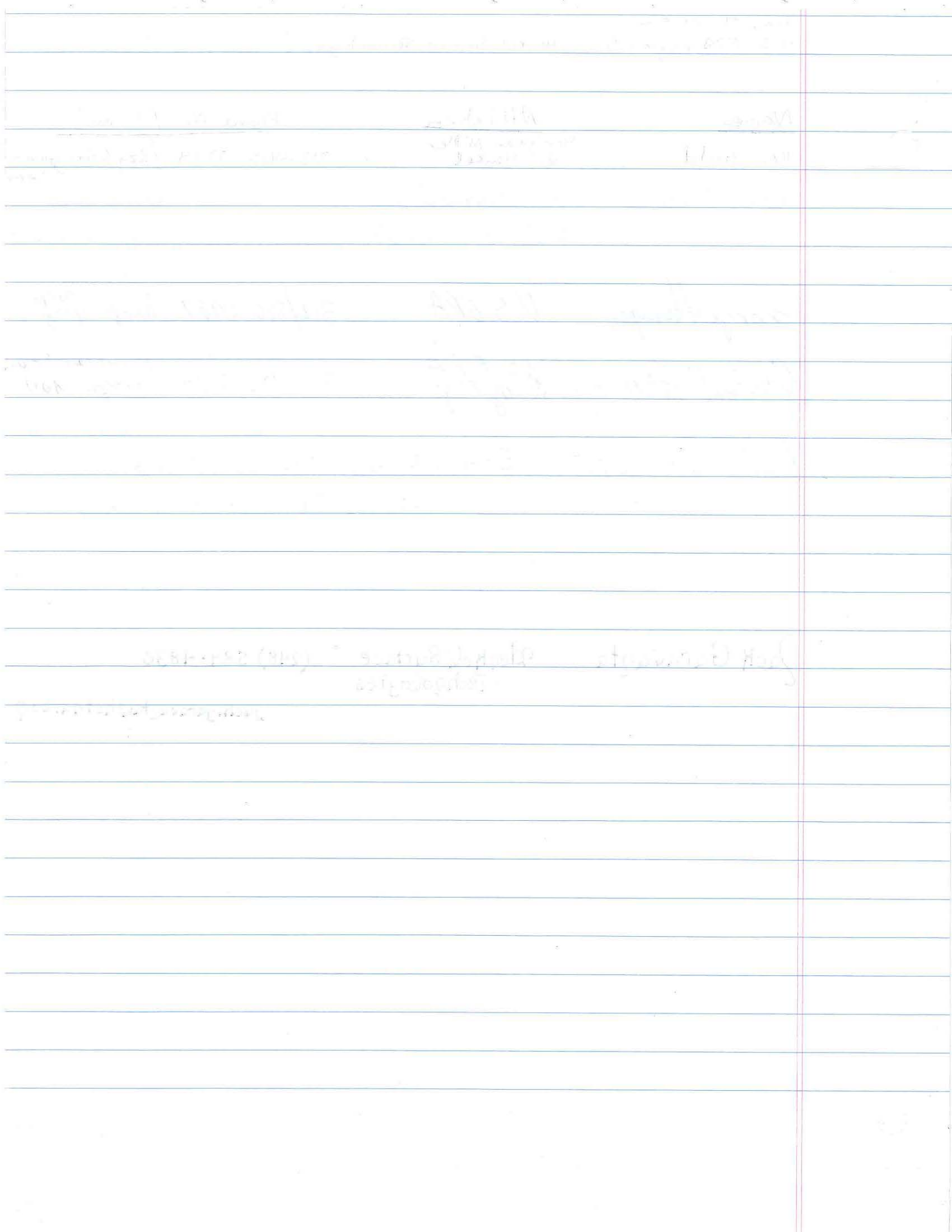
- 3) Calculate exact GW flow direction, and installation of a more suitably located background well.
- 4) Soil analysis outside the fence lines on the embankment down to the Creek.
- 5) Sampling for PCBs outside the SMWUs, since the earlier reports indicated PCB contamination, and no removals from SMWUs other than area 6? took place.

As the meeting concluded, Henkel representatives confirmed that they intended to appeal the Order and request a hearing. There was discussion on how long the appeal process might take. The Henkel representatives left and the meeting concluded at 12:45 pm.

May 7 2002

U.S. - EPA Region 5 - Henkel Surface Technologies

<u>Name</u>	<u>Affiliation</u>	<u>Phone No</u> / <u>E-mail</u>
Ken Gold	Honigman Miller B. Henkel	313-465-7394 / Kzg@honigman.com
Glenn Young	Henkel Corporation Ass't Gen Counsel	610-270-8204 glenn.young@henkel-america.com
George Hamper	U.S. EPA	312/886-0987 hamper.george@epa.gov
Brian P. Freeman	US EPA Proj mgr.	312-353-2720 freeman.brian@epa.gov
Andre Daugavietis	EPA, attorney	312-886-6663 daugavietis.andre@epa.gov
JEFFREY A. BOLIN	THE DRAGON CORP	248 932 0228 jbolin@dragon.com
Jack Garavanta	Henkel Surface Technologies	(248) 589-4830 jack.garavanta@hstna.com



Meeting between the USEPA and Henkel Surface Technologies

May 7, 2002

Subject: Administrative Order

**Reference: Morenci, Michigan Facility
MID 058 723 867**

**Purpose: To discuss the supplemental information provided
to the USEPA by The Dragun Corporation with respect to
the site's status.**

Agenda

Introductions

General Discussion

- **Supplemental Information**

Path Forward

- **Where do we go from here ?**

Meeting between the USEPA and Henkel Surface Technologies

May 7, 2002

Subject: Administrative Order

**Reference: Morenci, Michigan Facility
MID 058 723 867**

**Purpose: To discuss the supplemental information provided
to the USEPA by The Dragun Corporation with respect to
the site's status.**

Agenda

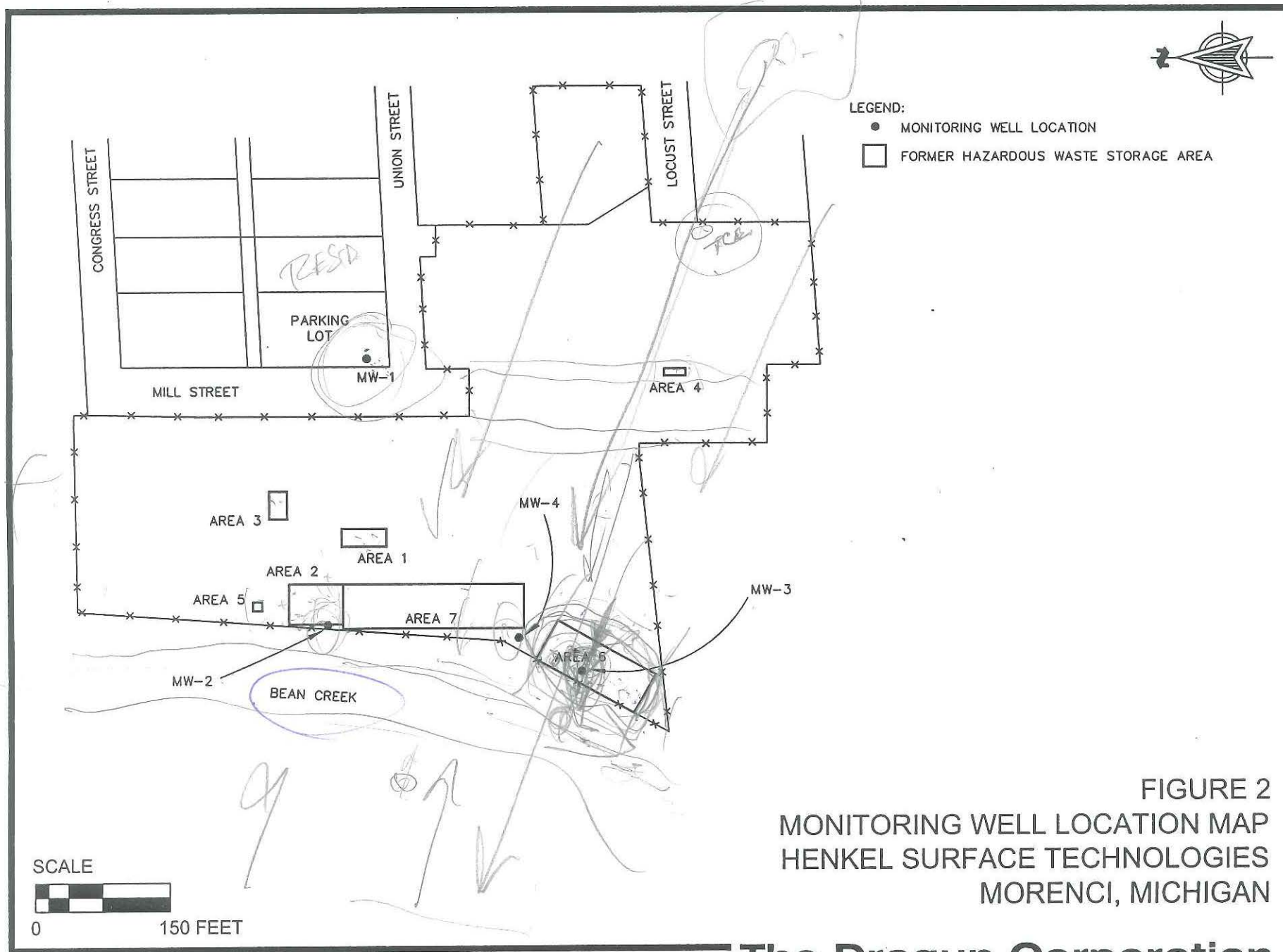
Introductions

General Discussion

- **Supplemental Information**

Path Forward

- **Where do we go from here ?**



Mr Garavanta gave a brief description of the site.

There is another parcel of property east of the fence which has never been developed.

City of Morenci is interested in purchasing the property and redeveloping the property. ~~They~~ They have already rezoned the East portion of the property for light industrial. Hentzel has offered to open Mill Street.

Western fence is on the property line.

Submitted final report on the container storage area in 2000. (Area 6)

Jeff Bolin said that soil in Area 6 has been removed to meet MDEQ residential standards (400 ppm) and have also demonstrated that no

Organic constituents TCE, DCE, Vinyl Chloride, are above MCLs in ~~Area 3~~ MW3

Don't know whether they used TCE before ¹⁹⁸⁶ ~~1989~~ but haven't used it since.

They think that source might be upgradient but they don't have a good background well.

George Hamper & Brian Freeman showed photographs of past management in the early 1980s that show that there were a large number of drums in storage and management ~~seemed to be~~ practices seemed to be conducive to leakage from the drums. PCB might have been in some of the drums.

Open to the idea of an institutional control for restricting the use of the groundwater

Jeff Botin and Jack Garaventa made the point that no one's ^{health} seems to be in danger.

Areas 1 through 6 were all drum storage areas shown in the CERCLA photographs.

PCBs were found in Area 2. May have been a release from construction equipment or something. ~~They~~ They have taken 6 or 8 samples in Area 2

Part A showed 4 container storage areas
2 more areas were added based on the pictures

Brian Freeman described our concern that some leakage from Areas 2, 5, & 6 may have escaped outside the fence line.

There is groundwater contamination and the source has not been discovered.

Kenn Gold
~~Jeff~~ stated that the property can be
sold for residential.

Need

① Analysis of Bear Creek as a
the gw migration barrier.

- ⓐ gw hydrology
- ⓑ Sediment analysis

② Background well on East Side of site

③ ~~A~~ Surface soil contamination outside
the fence ~~was~~ on the west side of
the property

PCBs

Possible contamination outside of SUMUS

Dragun Corporation

30445 Northwestern Hwy. • Suite 260 • Farmington Hills, MI, USA 48334 • 248-932-0228 • FAX 248-932-0618

April 29, 2002

Mr. Brian Freeman
RCRA Enforcement and Compliance Assurance Branch
United States Environmental Protection Agency, Region 5
77 West Jackson Boulevard (DE 9J)
Chicago, Illinois 60604-3590

SUBJECT: Supplemental Information
RCRA 3008 (h) Administrative Order
Henkel Surface Technologies Property
Morenci, Michigan
MID 058 723 867
Project #1004-05

Dear Mr. Freeman:

On behalf of Henkel Surface Technologies (HST), The Dragun Corporation is providing the enclosed reports for your review consistent with requests made in Andre Daugavietis' letter of April 10, 2002, regarding the above-referenced matter. These reports include:

- (1) Interim Soil Report – Closure Activities, Parker Amchem, Hazardous Waste Storage Pads, Morenci, Michigan Facility MID 058 723 867, dated 1/31/95, prepared by The Dragun Corporation
- (2) Groundwater Investigation Report – Closure Activities, Parker Amchem, Hazardous Waste Storage Pads, Morenci, Michigan Facility MID 058 723 867, dated 3/27/95, prepared by The Dragun Corporation
- (3) Soil Characterization Report, Henkel Surface Technologies Facility, Morenci, Michigan Facility MID 058 723 867, dated 10/22/97, prepared by The Dragun Corporation
- (4) Groundwater Sampling Report, Henkel Surface Technologies Facility, Morenci, Michigan Facility MID 058 723 867, dated 1/28/99, prepared by The Dragun Corporation

Did MOE^{us} finalize closure
for YST? If not, what?
No description of activities
that took place in each area.
No description of what chem.
used in each area.
No rationale for location +
numbers + types of samples.
What is the GW report
(Hydro study)
supposed to
show?

Debris w/ fence by
Bear Creek
Not related
to HST.

1) Yards
own
property.
2) You are
respon.

What about Bear
Creek Sediments
Testing w/ Bear
Creek?

- (5) Limited Soil Removal Report, Henkel Surface Technologies Facility, Morenci, Michigan Facility MID 058 723 867, dated 2/14/00, prepared by The Dragun Corporation
- (6) Hydrogeologic Study and Wellhead Protection Area Delineation, City of Morenci dated July 1997, prepared by Earth Tech

These reports document soil and groundwater investigation activities that have been conducted at the subject property by HST between 1993 and 1998 relative to meeting the requirements of the Closure Plan approved by the Michigan Department of Environmental Quality (MDEQ) in 1993. Additionally, the Wellhead Protection Plan, which was prepared by Earth Tech on behalf of the City of Morenci, provides information relating to the hydrogeology of the area and to the protection of the drinking water aquifer underlying the City of Morenci. Neither these documents nor the information presented within each were referenced in the draft Administrative Order (the Order).

These reports provide significant information relating to many of the issues presented in the Order. It was HST's understanding that the USEPA had reviewed these documents and discussed them with the MDEQ. The documents were referenced both in numerous discussions and written correspondence with Mr. Thomas Manning of the USEPA and you. These reports were also discussed during HST's meeting in Chicago with Mr. Manning and Mr. George Hamper on December 7, 2000.

These reports are summarized in the following text.

1. Interim Soil Report – Closure Activities

The Dragun Corporation was retained by Parker Amchem to conduct a soil investigation at the subject property located in Morenci, Michigan. The soil investigation was conducted in accordance with the Approved Closure Plan dated November 24, 1993, addressing the closure of seven former hazardous waste storage areas. The soil investigation was conducted on April 5 through 9, 1994, and July 29, 1994.

The soil investigation consisted of (1) drilling 36 soil borings; (2) collecting 180 soil samples; (3) testing for the presence of volatile organic chemicals (VOCs), polychlorinated biphenyls (PCBs), chromium, copper, lead, and zinc; and (4) assessing the leaching potential of metals from these soils. The following conclusions were presented in the Interim Soil Report.

Mr. Brian Freeman
April 29, 2002
Page 3

Review of laboratory results reveals that PCBs were not detected in the soil samples tested. Based on this information, additional investigation of the subject site is not warranted with respect to PCBs.

During the April 1994 sampling event, only methylene chloride was detected in the soil samples submitted for testing. No other VOCs were detected in any of the soil samples. During the July 1994 sampling event, methylene chloride was not detected in any of the soil samples tested. It is The Dragun Corporation's opinion that the April 1994 data indicating the presence of methylene chloride was in error and methylene chloride was not present in the soil samples collected at the subject property.

Review of laboratory data reveals that copper, chromium, lead, and zinc were detected at concentrations in excess of the site-specific background concentrations in several soil samples. None of the soil samples contained concentrations of these metals in excess of their respective Michigan Department of Natural Resources (MDNR) Type B direct contact criteria. In addition, assessment of the leaching potential of soil indicates that all of the metals can remain on site at these concentrations.

Based on review of the laboratory data, it is The Dragun Corporation's professional opinion that no additional testing of soil for the presence of chromium, copper, lead, zinc, VOCs, and PCBs is necessary. In addition, the laboratory testing data confirms that the concentrations of the tested materials are less than the Michigan Environmental Response Act (MERA) Type B cleanup criteria.

2. Groundwater Investigation Report – Closure Activities

The Dragun Corporation was retained by Parker Amchem to conduct a groundwater investigation at the former Parker Amchem facility located in Morenci, Michigan. The groundwater investigation was conducted in accordance with the Approved Closure Plan dated November 24, 1993.

The groundwater investigation consisted of (1) four quarterly groundwater sampling events conducted during April 1994, July 1994, October 1994, and January 1995; (2) the collection and laboratory testing of 19 groundwater samples for the presence of VOCs; and (3) the collection and laboratory testing of 20 groundwater samples for the presence of dissolved chromium, dissolved copper, dissolved lead, and dissolved zinc. The following conclusions were presented in the Groundwater Investigation Report.

Review of the results of the groundwater sampling reveals that only bromodichloromethane, TCE, and vinyl chloride were detected at concentrations in excess of MDNR Type B cleanup criteria. Comparison of the results of the groundwater sampling to the results of the soil

investigation reveal that although VOCs were detected in groundwater, VOCs were not detected in the soil samples collected from the hazardous waste storage areas.

Based on this information, it is The Dragun Corporation's professional opinion that the presence of these chemicals identified in groundwater is not related to the operation of the hazardous waste storage pads. Consequently, closure of the hazardous waste storage pads has been achieved consistent with the Approved Closure Plan.

3. Soil Characterization Report

At the request of HST (formerly Parker Amchem), The Dragun Corporation conducted additional soil testing at the HST, Morenci Facility located in Morenci, Michigan. The purpose of the additional testing was to determine whether concentrations of lead and chromium remaining in soil represent a characteristically hazardous waste (40 CFR, Part 261.24). This concern was raised by the MDEQ in its letter to HST dated February 18, 1997.

To assess these concerns and characterize the soil, The Dragun Corporation conducted sampling and testing of soil at select locations of the site, as defined by the MDEQ. The sampling was conducted on August 13, 1997, in accordance with the approved Work Plan dated June 9, 1997, as modified by the MDEQ in a letter dated July 1, 1997. MDEQ personnel, Mr. Clay Spencer and Mr. Ron Stone, were present during the sampling and collected split samples of all soil samples.

The investigation included the (1) drilling of ten soil borings, (2) collecting of ten soil samples, (3) laboratory testing of ten soil samples for the presence of total chromium and/or total lead, and (4) laboratory testing of four soil samples for the presence of chromium and/or lead using the toxicity characteristic leaching procedure (TCLP). These soil boring locations represent samples collected from the former hazardous waste storage areas designated 1, 2, 4, 5, 6, and 7.

Ten soil samples were submitted to a laboratory and tested for the presence of total lead and/or total chromium. Three of the ten soil samples contained chromium at concentrations in excess of 100 milligrams per kilogram (mg/kg). In addition, lead was detected in four of the ten soil samples at concentrations in excess of 100 mg/kg. All of these soil samples were collected from the former hazardous waste storage area 6.

Based on the results of total metals testing, The Dragun Corporation submitted four soil samples for testing using the TCLP. Leachate from the TCLP was then tested for the presence of chromium and/or lead. None of these samples contained chromium or lead at concentrations in excess of the regulatory threshold of 5 milligrams per liter (mg/L). Based on this information, the concentrations of chromium and lead detected in these soil samples do not exhibit the characteristics of a hazardous waste (40 CFR, Part 261.24).

4. Groundwater Sampling Report

The Groundwater Sampling Report documented the activities completed during the conduct of two groundwater sampling events at the HST property located in Morenci, Michigan. These groundwater sampling events were conducted in response to the MDEQ -Waste Management Division's (WMD) comments to the previously submitted Soil Characterization Report dated October 22, 1997, and the subsequent conference call between HST, The Dragun Corporation, and the MDEQ-WMD that took place on December 10, 1997.

The MDEQ stated that if HST conducted additional groundwater monitoring (two events) to show that metals are not leaching to groundwater, this would establish that HST had achieved "Type B criteria" and would not require an amendment to the Closure Plan. The two groundwater sampling events conducted on August 4, 1998 and November 4, 1998, were conducted to establish that the metals are not leaching to groundwater. The following conclusions were presented in the Groundwater Sampling Report.

Based on the results of the two groundwater sampling events, metals are not leaching to groundwater at unacceptable concentrations and all of the Hazardous Waste Storage Areas (except Hazardous Waste Storage Area #6) should be considered closed. As presented in previous reports, some concentrations of lead in soil in Hazardous Waste Storage Area #6 exceed the direct-contact cleanup criterion of 400 milligrams per kilogram (mg/kg).

5. Limited Soil Removal Report

The Dragun Corporation on behalf of HST directed limited soil removal activities at the HST facility located in Morenci, Michigan. The purpose of the limited soil removal was to remove soil from the former Hazardous Waste Storage Area #6 that contained concentrations of lead in excess of the residential and commercial direct cleanup criterion of 400 mg/kg.

This limited soil removal was conducted in response to the MDEQ-WMD letter dated March 8, 1999, regarding the previously submitted Groundwater Sampling Report dated January 28, 1999. In this letter, the MDEQ concurred that metals in soil at the subject property are not leaching to groundwater; consequently, only soil with metals concentrations above direct contact cleanup criteria require removal to meet the "Type B" cleanup criteria presented in the Revised Closure Plan approved during 1993. Based on previous testing at the subject property only a limited amount of soil in former Hazardous Waste Storage Area #6 required removal to meet these criteria.

To address these concerns, The Dragun Corporation directed the removal of soil from former Hazardous Waste Storage Area #6 and collected verification samples to confirm that a sufficient

Mr. Brian Freeman
April 29, 2002
Page 6

volume of soil was removed. These activities were conducted between August 19, 1999, and October 15, 1999, in accordance with the approved Work Plan dated April 14, 1999.

In general, these activities included (1) excavation and off-site disposal of approximately 1,560 cubic yards of soil and (2) collection and laboratory testing of 85 verification soil samples for the presence of total lead. The final excavation measured approximately 160 feet by 80 feet and varied in depth between approximately two and four feet. Approximately 1,560 cubic yards of soil were excavated from this area and disposed off site at a Type II landfill. The excavation was backfilled with clean sand fill material.

All of the applicable verification samples contained concentrations of lead less than the residential direct contact criterion of 400 mg/kg. Based on this information, and the previously submitted reports to the MDEQ, the closure requirements outlined in the approved Closure Plan have been obtained.

6. Hydrogeologic Study and Wellhead Protection Area Delineation

The goal of the Wellhead Protection Area Delineation was to define the hydrogeologic characteristics of the City of Morenci water supply aquifer relative to their municipal production wells. With respect to the protection of the water supply aquifer, the report states:

"The municipal production wells are screened in the lower aquifer of the Bean Creek outwash/channel deposits. The aquifer is artesian at the production wells site."

"The lower confined aquifer which supplies water for the City of Morenci appears to be very well protected by the natural presents [*sic*] of clay overlying the lower aquifer."

Conclusion

These reports indicate that soil and groundwater investigations have been conducted at the subject property and that potential exposures and risks have been evaluated. These reports further show that these activities have been conducted with MDEQ review and approval. Accordingly, this information is critical to the site evaluation and should be reflected in the Order.

HST believes that it has demonstrated that (1) the limited area of groundwater contamination at the subject property is not a threat to migrate off site at levels above cleanup criteria established by the MDEQ under Part 201; (2) USEPA has explicitly accepted MDEQ's Part 201 criteria as an appropriate basis for cleanups, and USEPA's own RCRA corrective action guidance encourages land-use based cleanups; and (3) HST has adequately investigated the subject

Mr. Brian Freeman
April 29, 2002
Page 7

property and, because the chemicals detected in groundwater do not pose a current or future risk to human health or the environment, any search for the source of these chemicals would not reveal information that would lead to a reduction in risk but would be a needless waste of resources.

Please call me at (248) 932-0228, if you have any questions regarding this information.

Sincerely,

THE DRAGUN CORPORATION



Jeffrey A. Bolin, M.S., CHMM
Environmental Scientist

Enclosures

JAB/lrs

Cc: Andre Daugavietis, Esq., USEPA (w/o enclosures)
Jack Garavanta, HST (w/o enclosures)
Kenneth C. Gold, Esq., HMS&C (w/o enclosures)
Glenn Young, Esq., Henkel Corporation (w/o enclosures)

LAW OFFICES

HONIGMAN MILLER SCHWARTZ AND COHN LLP

2290 FIRST NATIONAL BUILDING
660 WOODWARD AVENUE
DETROIT, MICHIGAN 48226-3563

FAX (313) 465-8000

KENNETH C. GOLD
TELEPHONE: (313) 465-7394
FAX: (313) 465-7395
E-MAIL: kgg@honigman.com

LANSING, MICHIGAN
BINGHAM FARMS, MICHIGAN

April 24, 2002

VIA FACSIMILE

Andre Daugavietis, Esq., C-14J
Associate Regional Counsel
United States Environmental Protection Agency
Region 5
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

**Re: RCRA 3008(h) Administrative Order (AO), Henkel Surface Technologies Site,
Morenci, Michigan (Site)**

Dear Mr. Daugavietis:

This responds to the requests made in your April 10, 2002 letter regarding the above-referenced matter.

In your letter, the U.S. Environmental Protection Agency (EPA) requests that Henkel Surface Technologies (HST) provide to Mr. Brian Freeman of EPA copies of documents relating to any sampling, analysis, removals, corrective actions or other environmental work performed at the Site since 1990, and any analysis or work that may have been performed on Bean Creek near the Site. HST will provide these documents by April 30, 2002, along with a letter from its consultant, The Dracun Corporation, summarizing the results of the activities described in the documents.

Your letter also suggests a meeting with HST between May 6 and May 10 to discuss the AO. HST appreciates EPA's response to HST's long-standing request for a meeting. Our preferred date is Tuesday, May 7. Our second choice is Wednesday, May 8. Please let me know if either of these dates works for EPA.

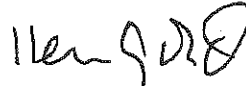
In addition, please note that HST, through its attorneys, intends to file a response to the AO and request a hearing. We anticipate filing that response on or before May 10, 2002 (although that date is less than 30 days after service of the AO on HST).

HONIGMAN MILLER SCHWARTZ AND COHN LLP

Andre Daugavietis, Esq.
April 24, 2002
Page 2

I look forward to hearing back from you regarding the proposed meeting dates.

Sincerely,



Kenneth C. Gold

cc: Jack Garavanta, HST
Glenn Young, Esq., Henkel Corporation
Jeffrey Bolin, The Dracun Corporation

DET_B\324350.1



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF

April 10, 2002

C-14J

Kenneth C. Gold, Esq.
Honigman Miller Schwartz and Cohn LLP
660 Woodward Avenue
2290 First National Building
Detroit, Michigan 48226.

Re: RCRA 3008(h) Administrative Order
Henkel Surface Technologies Site, Morenci, MI

Dear Mr. Gold:

As we have discussed, the United States Environmental Protection Agency (EPA) has determined that corrective action is necessary at the above-referenced facility site in order to protect human health and the environment, and is today issuing an Administrative Order (Order) under the authority of Section 3008(h) of the Resource Conservation and Recovery Act (RCRA) to Henkel Surface Technologies requiring corrective action at the site. The Order addresses documented releases of hazardous wastes and/or hazardous constituents at the site.

I am writing to offer Henkel Surface Technologies an opportunity to meet with us to discuss the Order and its requirements, and to provide information relevant to the corrective action required under the Order. The Order will include requirements for the company to perform the following: a RCRA Facility Investigation (RFI); a Corrective Measures Study (CMS); and a Corrective Measures Initiative (CMI). The meeting should be held after the company has had an opportunity to carefully review the Order and its requirements. EPA would prefer to have an opportunity prior to the meeting to review any additional relevant documents that the company may have.

EPA is interested in knowing the details of any sampling, analysis, removals, corrective actions or other environmental work that may have been performed at the site since 1990. We are also interested in any analysis or work that may have been performed on Bean Creek near the site. Please provide us with documentation of any of the foregoing actions that may have been performed and their results.

The Order is due to become final 30 days after service, unless the company files a response and request for hearing within the

30 days. Accordingly, we request that Henkel Surface Technologies provide copies of any relevant documents to us in about 15 days (about April 26). We would prefer to hold a meeting between May 6 and May 10, if possible.

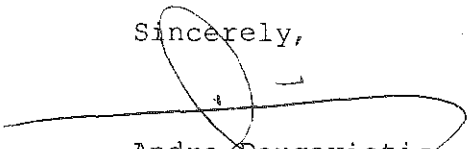
EPA plans to file copies of relevant documents provided by the company as a supplement to the Administrative Record.

The company should provide copies any documents relevant to the scope of the Order to:

Brian Freeman
RCRA Enforcement and Compliance Assurance Branch
U.S. Environmental Protection Agency
Region 5
77 W. Jackson (DE 9J)
Chicago, Illinois 60604

After you and your client review th Order, please contact me to schedule a meeting. You should also address any questions regarding this letter or the proceedings regarding the Order to me. My telephone number is (312)886-6663.

Sincerely,



Andre Daugavietis
Associate Regional Counsel

bcc: Brian Freeman 9J

3



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

April 10, 2002
CERTIFIED MAIL 7099 3400 0000 9586 8516
RETURN RECEIPT REQUESTED

DE-9J

Mr. Gerald Kohlsmith
President, Henkel Corporation, N.A.
Registered Agent for:
Henkel Surface Technologies
Division of Henkel Corporation
32100 Stephenson Highway
Madison Heights, MI 48071

RE: RCRA 3008(h) Administrative
Order
Henkel Surface Technologies
322 West Main Street
Morenci, MI
EPA ID: MID 058 723 867

Dear Mr. Kohlsmith:

RCRA-05- 2002-0004

Enclosed is an Administrative Order (Order) issued by the United States Environmental Protection Agency (U.S. E.P.A.) proceeding under the authority of Section 3008(h) of the Resource Conservation and Recovery Act (RCRA). This Order has been drafted to address documented releases of hazardous wastes and/or hazardous constituents at the referenced facility. U.S. EPA has determined that corrective action is necessary at the facility in order to protect human health and the environment.

On September 30, 1999, the U.S. EPA contacted Henkel Surface Technologies (Henkel) to initiate negotiations on a Voluntary Agreement to address the above mentioned releases. From this date until October 1, 2001 the U.S. EPA was not successful in negotiating such a Voluntary Agreement with Henkel, after undergoing several draft agreements. In conversations with the U.S. EPA on October 17 and 23, 2001, Henkel was notified that the Order would be forthcoming.

In addition to the Order, this letter encloses a set of Attachments to the Order: the RCRA Facility Investigation (RFI) and Corrective Measures Study (CMS) scope of work (as Attachment I) and the Corrective Measures Initiative (CMI) scope of work (as Attachment II), the Region 5 Quality Assurance Project Plan Policy, (as Attachment III), References (as Attachment IV) and Acknowledgment of Termination (as Attachment V).

In Accordance with 40 CFR § 24.05, this Order shall become final unless Respondent files a response and a request for a public hearing in writing no later than thirty (30) days after receipt of the Order. The response and request for hearing must be filed with:

Regional Hearing Clerk
U.S. EPA Region 5
77 W. Jackson Boulevard
Chicago, Illinois 60604-3590

A copy of the written response and request for hearing and copies of all subsequent documents filed in this action must be sent to:

Mr. Andre Daugavietis, Esq.
Office of Regional Counsel, (C-14J)
U.S. EPA Region 5
77 W. Jackson Boulevard
Chicago, Illinois 60604-3590

Additional information is provided in applicable regulations and Section XXIII of the Order.

If you have any questions about this letter, please contact Mr. Andre Daugavietis of the Office of Regional Counsel at (312) 886-6663.

Sincerely yours,



Joseph M. Boyle, Chief
Enforcement and Compliance Assurance Branch
Waste, Pesticides and Toxics Division

Enclosure

cc: Mr. Jack Garavanta, Henkel Surface Technologies
Mr. Pete Quackenbush, MI Department of Environmental Quality

bcc: Andre Daugavietis, Attorney U.S. EPA, ORC C-14J
 Gerald Phillips, U.S. EPA, D-8J,
 Brian P. Freeman, U.S. EPA, DE-9J ✓

ENFORCEMENT AND COMPLIANCE ASSURANCE BRANCH

SECRETARY	SECRETARY	SECRETARY	SECRETARY	SECRETARY	SECRETARY
				<i>Handwritten initials</i>	
AUTHOR/11/17/02 TYPIST <i>BRIAN P. FREEMAN</i>	COMPLIANCE SECTION 1 SECTION CHIEF	COMPLIANCE SECTION 2 SECTION CHIEF	CA SECTION SECTION CHIEF	ECAB BRANCH CHIEF	WPTD DIVISION DIRECTOR
<i>Handwritten signature</i>				<i>Handwritten: 7/1/03 4/5/02</i>	

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5

IN THE MATTER OF:)

Henkel Surface Technologies,)

Respondent.)
_____)

DOCKET NO. 3716
Docket No. RCRA (3008h)-05-2002-0004

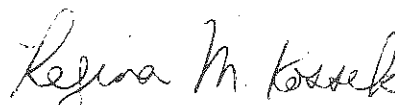
ORDER

Complainant, EPA, and Respondent, Henkel Surface Technologies (HST), have submitted separate Status Reports. The parties have exchanged information and plan on meeting in late June. EPA requests, and the Respondent concurs in the request, for a ninety day extension of time. The request is hereby granted.

The parties are ordered to file a joint or separate status report(s) by August 2, 2003.

A conference call is scheduled for September 4, 2003, at 11:00 AM, CDT. It will be initiated by the undersigned.

SO ORDERED.


Regina M. Kossek
Presiding Officer

Date: June 5, 2003



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

C-14J

TE 512 16 2317

February 16, 2005

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ENVIRONMENTAL PROTECTION AGENCY
REGION 5

Regina M. Kossek
Regional Presiding Officer
U.S. Environmental Protection Agency, Region 5
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

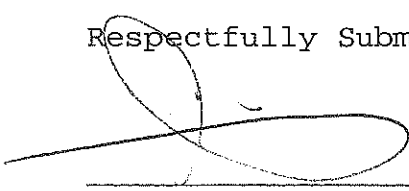
**Status Report: In the Matter of Henkel Surface Technologies,
Respondent, Docket No. RCRA(3008h)-05-2002-0004**

Dear Ms. Kossek:

In response to the Order dated January 14, 2005, this is Complainant's final status report in this matter. As previously reported, EPA and Henkel Surface Technologies (HST) have reached agreement on the terms of settlement resolving the case. The Order resolving this matter has been signed by HST and EPA and filed. A copy of the Order is enclosed.

Thank you for your patience in the long process this Order has involved.

Respectfully Submitted,



Andre Daugavietis
Associate Regional Counsel

Enclosure (copy of Order)

cc: Ken Gold, Esq. (w/enclosure)
Brian Freeman, 9J (w/enclosure)
Clay Spencer, MDEQ (w/enclosure)
Regional Hearing Clerk (w/original for filing)



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

May 14, 2002

REPLY TO THE ATTENTION OF:

Regina Kossek
Judicial Officer
Office of Regional Counsel
U.S. Environmental Protection Agency
77 W. Jackson Blvd. (C-14J)
Chicago, Illinois 60604-3590

E-19J

RE:	In The Matter of:	Henkel Surface Technologies (A Division of Henkel Corp.)
	Docket No:	RCRA(3008h)-05-2002-0004
	Complaint Filed:	April 10, 2002
	Total Proposed Penalty:	\$10,000,000.00

Dear Regina:

I am enclosing a copy of Respondent, **Henkel Surface Technologies' (A Division of Henkel Corp.)** Administrative Order, Response and Affirmative Defenses to Administrative Order to Findings under which Respondent is Requesting a Hearing.

Should you have any questions or need any additional information, please contact me at 312-353-3617.

Thank you.

Respectfully,

Sonja Brooks-Woodard
Regional Hearing Clerk

Enclosures

cc: Kenneth C. Gold, Esquire
Honigman Miller Schwartz and Cohn
2290 First National Building
Detroit, MI 48226-3583
(313) 465-7394

Andre Daugavietis, Esquire
Associate Regional Counsel
Office Regional Counsel
U.S. EPA Region 5
77 West Jackson Blvd., C-14J
Chicago, Illinois 60604-3590
(312) 886-6663



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
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REPLY TO THE ATTENTION OF:

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C-14J

US ENVIRONMENTAL
PROTECTION AGENCY
REGION V

June 29, 2004

Regina M. Kossek
Regional Presiding Officer
U.S. Environmental Protection Agency, Region 5
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

**Status Report: In the Matter of Henkel Surface Technologies,
Respondent, Docket No. RCRA(3008h)-05-2002-0004**

Dear Ms. Kossek:

In response to the Order dated April 13, 2004, this is Complainant's status report in this matter. As previously reported, the parties reached agreement in principle on resolving the case, and have been negotiating since late 2003 to attempt finalize legal terms of a settlement.

Since reaching agreement in principle in late 2003, EPA has provided Henkel Surface Technologies (HST) with a proposed Agreed Order and two subsequent significantly revised drafts of the Order that would resolve this matter. EPA has made on-going revisions to the draft order terms in response to HST's various comments, suggestions and requests. EPA has attempted to be fair, and reasonable and as generous as possible toward HST in making such significant revisions to the proposed Order.

Unfortunately, the Parties have not yet been able to agree on terms of an Order. Perhaps the most significant aspect of the Order, and information to be gathered, is sampling of creekbed sediments near the HST site. As EPA informed HST in 2003, EPA intended that the sampling be performed this past spring. Under the agreement in principle (and the draft Orders), HST would have performed the sampling. HST (understandably) does not wish to perform sampling without an Order in place. EPA intends that the sampling be performed promptly, during July. Because the Parties have

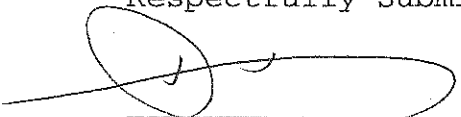
not been able to reach complete agreement regarding the details of the sampling, and it is not likely that an Order can be finalized before July sampling, EPA now intends to perform the sampling itself (with the assistance of a contractor).

EPA's decision to perform the sampling resolves and removes a major remaining issue in the case. Additionally, the results of the sampling will indicate the scope of remaining work to be performed at the Site, and will remove the major "contingency" from the draft Agreed Order. The results of analysis from the sampling are expected by the end of August.

EPA believes that the upcoming sampling will move the case toward resolution, and significantly narrow any remaining issues. After seeing the results of the analysis from the sampling, the Parties should be able to determine how to proceed with settling (or litigating) this matter.

For the foregoing reasons, EPA requests an opportunity to report on the status of the case by September 17, 2004, after the sampling analysis results have been available and the parties have been able to discuss resolution of the case in light of what the sampling shows.

Respectfully Submitted,



Andre Daugavietis
Associate Regional Counsel

cc: Ken Gold, Esq.
Brian Freeman, 9J
C. Spencer, MDEQ
P. Quackenbush, MDEQ
Regional Hearing Clerk

CASE NAME: Henkel Surface Technologies
DOCKET No. RCRA (3008h)-05-2002-0004

CERTIFICATE OF SERVICE

I hereby certify that today I filed the original of this Status Report in the office of the Regional Hearing Clerk (E-19J), U.S. Environmental Protection Agency, Region 5, 77 W. Jackson Blvd., Chicago, IL 60604-3590.

I further certify that I then caused true and correct copies of the filed document to be promptly delivered by hand to:

Regina M. Kossek (C-14J)
Regional Presiding Officer
U.S. Environmental Protection Agency, Region 5
77 W. Jackson Boulevard
Chicago, IL 60604-3590

and mailed via first class mail to:

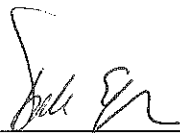
Kenneth C. Gold, Esq.
Honigman Miller Schwartz and Cohn, LLP
660 Woodward Avenue
2290 First National Building
Detroit, MI 48226

US ENVIRONMENTAL
PROTECTION AGENCY
REGION V

04 JUN 29 P 4:27

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Dated: 29 June, 2004


Donald E. Ayres (C-14J)
Paralegal Specialist, MM2-4
U.S. Environmental Protection Agency
77 W. Jackson Blvd.
Chicago, IL 60604-3590
(312) 353-6719



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
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CHICAGO, IL 60604-3590

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REPLY TO THE ATTENTION OF: 77-400-0000-0004

C-14J

April 9, 2004

Regina M. Kossek
Regional Presiding Officer
U.S. Environmental Protection Agency, Region 5
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

**Status Report: In the Matter of Henkel Surface Technologies,
Respondent, Docket No. RCRA(3008h)-05-2002-0004**

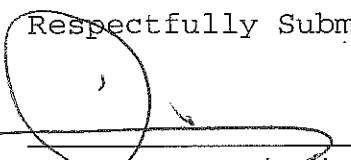
Dear Ms. Kossek:

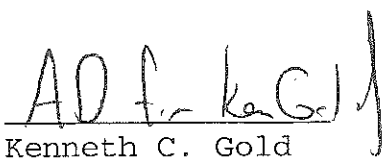
In response to the Order dated February 17, 2004, this is the Parties' joint status report in this matter. As previously reported, the parties have reached agreement in principle on resolving the case, and the task remaining for the Parties is to finalize legal terms of settlement.

On March 19, 2004, EPA provided Henkel Surface Technologies (HST) with a revised draft of an Agreed Order that would resolve this matter. The revisions were in response to HST's comments, suggestions and requests in response to the initial draft of the Order which EPA submitted to HST in December 2003. HST has informed EPA that, due to various scheduling issues, the company needs time into May to respond to the revised Order.

The Parties request an opportunity to either file an Agreed Order or to report on the status of the negotiation process by June 29, 2004.

Respectfully Submitted,


Andre Daugavietis
Associate Regional Counsel


Kenneth C. Gold
Counsel for Henkel
Surface Technologies

cc: Ken Gold, Esq.
Brian Freeman, 9J
C. Spencer, MDEQ
P. Quackenbush, MDEQ
Regional Hearing Clerk

addresses for cc's:

Kenneth C. Gold, Esq.
Honigman Miller Schwartz and Cohn LLP
660 Woodward Avenue
2290 First National Building
Detroit, Michigan 48226

Clay Spencer
Michigan Dept. of Environmental Quality
Waste Management Division
Constitution Hall
525 W. Allegan
P.O. Box 30241
Lansing, MI 48909

Pete Quackenbush
Michigan Dept. of Environmental Quality
Waste Management Division
Constitution Hall
525 W. Allegan
P.O. Box 30241
Lansing, MI 48909



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

C-14J

December 17, 2003

Regina M. Kossek
Regional Presiding Officer
U.S. Environmental Protection Agency, Region 5
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

**Status Report: In the Matter of Henkel Surface Technologies,
Respondent, Docket No. RCRA(3008h)-05-2002-0004**

Dear Ms. Kossek:


In response to the Order dated November 17, 2003, this is the Parties' joint status report in this matter. As previously reported, the parties have reached agreement in principle on the remaining issues in the case, including the issue of sediment sampling. Subsequently, technical representatives of the Parties have exchanged information and have substantially narrowed the remaining technical issues. The task remaining for the Parties is to negotiate and finalize legal terms of settlement.

On December 11, 2003, EPA provided Henkel Surface Technologies (HST) with a draft of an Agreed Order that would resolve this matter. EPA's formulation of the draft Order was slowed by serious health issues experienced by the EPA's primary technical assignee on the case. HST has indicated that it requires additional time to review the draft Order. HST has provided EPA with initial feedback on several aspects of the Order on December 16. Until further exchanges occur it is difficult to know how much time will be required to finalize an Agreed Order containing mutually acceptable terms of settlement. Due to the holidays, and other travel plans on both sides, the Parties request an opportunity to either file an Agreed Order or to report on

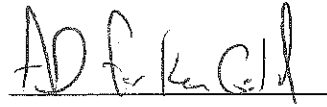


the status of the negotiation process by February 13, 2004.

Respectfully Submitted,



Andre Daugavietis
Associate Regional Counsel



Kenneth C. Gold
Counsel for Henkel
Surface Technologies

cc: Ken Gold, Esq.
Brian Freeman 9J
C. Spencer, MDEQ
P. Quackenbush, MDEQ
Regional Hearing Clerk

CASE NAME: Henkel Surface Technologies
DOCKET No. RCRA (3008h)-05-2002-0004

CERTIFICATE OF SERVICE

I hereby certify that today I filed the original of this Status Report in the office of the Regional Hearing Clerk (E-19J), U.S. Environmental Protection Agency, Region 5, 77 W. Jackson Blvd., Chicago, IL 60604-3590.

I further certify that I then caused true and correct copies of the filed document to be promptly delivered by hand to:

Regina M. Kossek (C-14J)
Regional Presiding Officer
U.S. Environmental Protection Agency, Region 5
77 W. Jackson Boulevard
Chicago, IL 60604-3590

and mailed via first class mail to:

Kenneth C. Gold, Esq.
Honigman Miller Schwartz and Cohn, LLP
660 Woodward Avenue
2290 First National Building
Detroit, MI 48226

Dated: 17 December, 2003



Donald E. Ayres (C-14J)
Paralegal Specialist, MM2-4
U.S. Environmental Protection Agency
77 W. Jackson Blvd.
Chicago, IL 60604-3590
(312) 353-6719



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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REPLY TO THE ATTENTION OF:

C-14J

November 14, 2003

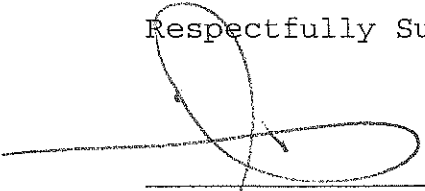
Regina M. Kossek
Regional Presiding Officer
U.S. Environmental Protection Agency, Region 5
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

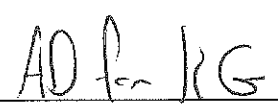
**Status Report: In the Matter of Henkel Surface Technologies,
Respondent, Docket No. RCRA(3008h)-05-2002-0004**

Dear Ms. Kossek:

In response to the Order dated October 8, 2003, this is the Parties' joint status report in this matter. The parties have reached agreement in principle on the remaining issues in the case, including the issue of sediment sampling. Until the technical representatives of the Parties have an opportunity to exchange information, it is difficult to know how much time would be required to finalize an Agreed Order containing the terms of settlement. The Parties plan to begin the technical exchange next week. The Parties request an opportunity to either file an Agreed Order or to report on the status of the negotiation process by December 17, 2003.

Respectfully Submitted,


Andre Daugavietis
Associate Regional Counsel


Kenneth C. Gold
Counsel for Henkel
Surface Technologies

cc: Ken Gold, Esq.
Brian Freeman 9J
C. Spencer, MDEQ
P. Quackenbush, MDEQ
Regional Hearing Clerk

addresses for cc's:

Kenneth C. Gold, Esq.
Honigman Miller Schwartz and Cohn LLP
660 Woodward Avenue
2290 First National Building
Detroit, Michigan 48226

Clay Spencer
Michigan Dept. of Environmental Quality
Waste Management Division
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525 W. Allegan
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Lansing, MI 48909

Pete Quackenbush
Michigan Dept. of Environmental Quality
Waste Management Division
Constitution Hall
525 W. Allegan
P.O. Box 30241
Lansing, MI 48909

CASE NAME: Henkel Surface Technologies
DOCKET No. RCRA (3008h)-05-2002-0004

CERTIFICATE OF SERVICE

I hereby certify that today I filed the original and one copy of this joint Status Report in the office of the Regional Hearing Clerk (E-19J), U.S. Environmental Protection Agency, Region 5, 77 W. Jackson Blvd., Chicago, IL 60604-3590.


I further certify that I then caused true and correct copies of the filed document to be promptly delivered by hand to:

Regina M. Kossek (C-14J)
Regional Presiding Officer
U.S. Environmental Protection Agency, Region 5
77 W. Jackson Boulevard
Chicago, IL 60604-3590

and mailed via first class mail to:

Kenneth C. Gold, Esq.
Honigman Miller Schwartz and Cohn, LLP
660 Woodward Avenue
2290 First National Building
Detroit, MI 48226

Dated: 14 November, 2003


Donald E. Ayres (C-14J)
Paralegal Specialist, MM2-4
U.S. Environmental Protection Agency
77 W. Jackson Blvd.
Chicago, IL 60604-3590
(312) 353-6719

Via U.S. Mail
Via Facsimile

September 24, 2003

Ms. Regina M. Kossek
Presiding Officer
U.S. Environmental Protection Agency, Region 5
77 West Jackson Boulevard
Chicago, IL 60604-3590

Re: Status Report: In the Matter of Henkel Surface Technologies, Respondent,
Docket No. RCRA (3008h)-05-2002-0004

Dear Judge Kossek:

As required by your September 4, 2003 Report of Telephone Call and Order, on behalf of Henkel Surface Technologies ("HST"), this letter serves as a status report regarding the above-referenced matter, which involves HST's property in Morenci, Michigan ("Site").

As indicated during our telephone conference call on September 4, 2003, HST and the United States Environmental Protection Agency, Region 5 ("U.S. EPA") have identified three issues that remain outstanding. The parties have reached an agreement in principle on two of the issues and dialogue is continuing on the third issue. The following describes the two issues for which agreement in principle has been reached:

(1) U.S. EPA has described the first issue as: "Characterize the vertical and horizontal nature and extent of lead in soils in at least four sampling locations outside Waste Area 6. Remove and properly dispose of soils with lead concentrations not protective of human health and the environment." HST has indicated its willingness to do this, but is awaiting advance clarification from U.S. EPA regarding exactly what is involved.

(2) U.S. EPA has described the second issue as: "Submit a Description of Current Conditions (DOCC) report, describing prior use history of the Facility, use of surrounding areas, known nature and extent of contamination including Bean Creek, and a brief synopsis of RCRA Closure work performed at the Site." HST has indicated its willingness to do this, but is awaiting confirmation from U.S. EPA that the report process does not require new sampling. U.S. EPA has also informed HST that it will provide HST with an example of such a report or provide guidance on what the report should cover and how detailed U.S. EPA would like it to be.

The unresolved issue is U.S. EPA's demand that HST obtain and analyze 10 sediment samples from Bean Creek, which is off-site from the Site, for CLP metals, VOCs, SVOCs, and

HONIGMAN

Ms. Regina M. Kossek

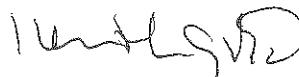
September 24, 2003

Page 2

PCBs. Previously, in response to U.S. EPA's concerns, HST sampled the soils along the creek bank to test for evidence that contamination may have migrated from the Site to the creek. This sampling found no contamination of concern and no evidence that contamination has migrated from the Site to the creek. U.S. EPA continues to demand that HST perform off-Site sampling based on unsubstantiated statements in old inspection reports which do not and cannot contradict the actual recent data obtained by HST at U.S. EPA's request. In the absence of new information that contradicts HST's soil sampling results, HST believes that U.S. EPA lacks the authority under applicable precedent to require it to sample in Bean Creek.

In addition, in support of its position U.S. EPA has cited a 1994 "PA/VSI" report which, for unknown reasons, was not included in U.S. EPA's response to HST's comprehensive Freedom of Information Act ("FOIA") request for all documents relevant to the Site. HST plans to inquire further how and why it apparently did not receive U.S. EPA's entire non-confidential file regarding the Site despite HST's request for all such documents. In the meantime, HST remains willing to review and consider all information presented by U.S. EPA regarding this unresolved issue.

Respectfully yours,



Kenneth C. Gold

cc: Andre Daugavietis, Esq., Office of Regional Counsel, U.S. EPA Region 5 ✓

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

C-14J

September 24, 2003

Regina M. Kossek
Regional Presiding Officer
U.S. Environmental Protection Agency, Region 5
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

**Status Report: In the Matter of Henkel Surface Technologies,
Respondent, Docket No. RCRA(3008h)-05-2002-0004**

Dear Ms. Kossek:

In response to the Order dated September 4, 2003, this is Complainant's status report in this matter summarizing, in U.S. EPA's understanding, the three issues remaining between the parties. U.S. EPA provided Henkel Surface Technologies (HST) with a list of remaining work the Agency is asking HST to undertake at the Site, under the proposed Order in this matter, to ensure that undue risks to human health are not posed by site or sediment conditions. Discussions between U.S. EPA and HST have resulted in HST indicating that it can likely agree to 2 of the 3 remaining items that U.S. EPA is asking the company to do at the Site. The company does not, however, agree to sample the Bean Creek sediments. Bean Creek flows adjacent to the Site property.

The three remaining "work to be done" items are as follows:

- 1) "Characterize the vertical and horizontal nature and extent of contamination of Lead in soils in at least four sampling locations outside Waste Area 6. Remove and properly dispose of soils with lead concentrations not protective of human health and the environment."

HST agrees to do this, but would want advance clarification from the Agency regarding exactly what is involved. The Agency agrees to provide such advance clarification.

2) "Obtain and analyze 10 sediment samples from Bean Creek. Some of the sediment samples should be taken upstream from the site, near the site and downstream from the site. These samples should be analyzed for CLP Metals, VOCs, SVOCs and PCBs."

HST has not agreed to sample Bean Creek sediments. The company believes that the Agency lacks authority to order sediment sampling under these circumstances. HST claims that the testing that has been done of the former "leaking drum area" and the creek bank proves that there are not currently contaminants at levels of concern in the pathways to the creek, and believes that therefore there is no indication that the creek or sediments would be contaminated. U.S. EPA believes that observations of leaking drums at the Site near the creek, at least one buried drum found in the creek bank, observation of contaminated water discharges to the creek, evidence of run-off from contaminated areas to the creek, as well as contaminant levels that have been detected near the "leaking drum area" on the creek bank, indicate that it is likely that hazardous waste contaminants entered the creek and creek sediments.¹ Based on the extensive evidence of run-off and discharge of hazardous waste contaminants into the creek, U.S. EPA believes that there is ample precedent for authority to order the Company to perform basic sampling of the sediments to determine the extent of any contamination.

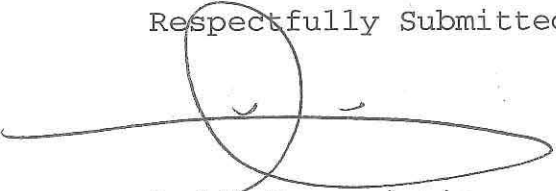
3) "Submit a Description of Current Conditions (DOCC) report, describing prior use history of the Facility, use of surrounding areas, known nature and extent of contamination including Bean Creek, and a brief synopsis of RCRA Closure work performed at the Site."

¹ The parties are also following up on a finding in a contractor's report from 1994 that "Heavy metals and PCBs were detected in Bean Creek. The contamination detected in the creek was probably the result of reported leaking barrels." U.S. EPA expects to report on that follow-up during the call scheduled in this matter for October 8, 2003.

HST has indicated that it would agree to this, but seeks clarification from the Agency that the report process does not require new sampling etc. U.S. EPA plans to provide HST with an example of such report, and/or provide guidance on what the report should cover and how detailed it needs to be.

In conclusion, U.S. EPA is still hopeful that HST will agree to the limited sediment sampling currently being requested and that the parties can agree to the terms of a compliance order for the Site that would resolve the matters at issue without further legal proceedings.

Respectfully Submitted,



Andre Daugavietis
Associate Regional Counsel

cc: Ken Gold, Esq.
Brian Freeman 9J
C. Spencer, MDEQ
P. Quackenbush, MDEQ
Regional Hearing Clerk

CASE NAME: Henkel Surface Technologies
DOCKET No. RCRA (3008h)-05-2002-0004

CERTIFICATE OF SERVICE

03 SEP 24 P3:22

I hereby certify that today I filed the original of this Status Report in the office of the Regional Hearing Clerk (E-19J), U.S. Environmental Protection Agency, Region 5, 77 W. Jackson Blvd., Chicago, IL 60604-3590.

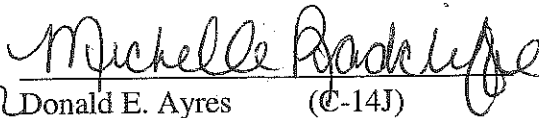
I further certify that I then caused true and correct copies of the filed document to be promptly delivered by hand to:

Regina M. Kossek (C-14J)
Regional Presiding Officer
U.S. Environmental Protection Agency, Region 5
77 W. Jackson Boulevard
Chicago, IL 60604-3590

and mailed via first class mail to:

Kenneth C. Gold, Esq.
Honigman Miller Schwartz and Cohn, LLP
660 Woodward Avenue
2290 First National Building
Detroit, MI 48226

Dated: September 24th, 2003


for Donald E. Ayres (C-14J)
Paralegal Specialist, MM2-4
U.S. Environmental Protection Agency
77 W. Jackson Blvd.
Chicago, IL 60604-3590
(312) 353-6719



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

C-14J

August 14, 2003

Mr. Kenneth C. Gold
Honigman Miller Schwartz and Cohn LLP
2290 First National Building
660 Woodward Avenue
Detroit, MI 48226-3583

Re: Support for RCRA Corrective Action Requirements for Henkel
Site, Dkt. No. RCRA(3008h)-05-2002-0004

Dear Mr. Gold:

I am writing, as follow up on our recent correspondence, to provide Henkel Surface Technologies (HST) with some of the legal authority for work EPA seeks at the company's site in Morenci, Michigan (Site).

In re Amerada Hess Corporation Port Reading Facility, RCRA Permit Appeal No. NJD 045 445 483, RCRA Permit Appeal No. 88-10; 1989 EPA App. Lexis 16; 2 E.A.D. 910; finding that "adequate legal authority for the disputed requirement exists under RCRA § 3005(C(3)). "This omnibus provision allows the Agency to impose any permit term and condition necessary to protect human health and the environment... this authority provides a sufficient legal predicate for requiring soil sampling for a suspected release from a non-SWMU." "For a suspected release from a non-SWMU, the threshold showing needed to justify such soil sampling should be derived from the language of the omnibus provision itself. In other words, such requirement may be imposed for a suspected release from a non-SWMU if, in the words of the omnibus provision, it is "necessary to protect human health and the environment." "This decision is supported by the RCRA Facility Assessment conducted by the [state] which characterizes the area as having a "suspected release" and concludes that "soil sampling

is warranted to determine whether or not a release may have occurred in the area" (emphasis added).

In re Morton International, Inc., RCRA Permit Appeal No. MSD 008 186 587, RCRA Permit Appeal No. 90-17; 1992 EPA App. Lexis 18; 3 E.A.D. 857; finding that "The RCRA corrective action authority is not limited to known or detected releases, but also extends to likely or suspected releases. In re American Cyanamid Co., RCRA Appeal No. 89-8, p. 14 n. 28 [1991 EPA app. Lexis 26.; 3 E.A.D. 657](Aug. 5, 1991). To require an owner/operator to conduct further investigation of a SWMU [pursuant to § 3004(u)] the Region need not have conclusive evidence of a release, but instead only evidence of a likely or suspected release. In re Shell Oil Co., [RCRA Appeal No 88-48; 1990 EPA App. Lexis 12; 3 E.A.D. 116] p. 6 n. 6. Consequently, a permit may require soil sampling or other preliminary detection activities necessary to determine whether a suspected or likely release requires further corrective action." "§ 3008(h)(1) allows corrective action for any release of hazardous waste at an interim status facility if necessary to protect human health or the environment regardless of whether the release is from a SWMU or non-SWMU area." "[F]indings and recommendations in the RFA support the limited type of corrective action immediately required by the permit, namely, the preparation of a workplan to confirm the existence of a suspected release of hazardous wastes and constituents requiring corrective action." (emphasis added).

In re Sandoz Pharmaceuticals Corp., RCRA Permit Appeal No. NJD 002 147 023, RCRA Permit Appeal No. 91-14; 1992 EPA App. Lexis 25; 4 E.A.D. 75 (EAB 1992); finding that "It is well established that RCRA § 3005(c)(3) provides authority to require corrective action for certain non-SWMUs." "[T]he finding must have a sufficient factual basis in the record." "Early Agency guidance or corrective action, and permit appeal decisions based thereon, state that a mere "suspected" release is sufficient to require further investigation ... The most recent Subpart S proposal would authorize the required remedial investigations if the Agency determines that hazardous constituents were likely released from a SWMU. 55 Fed. Reg. 30874 (July 27, 1993)(264.510)" (emphasis added).

In re Allied Signal, Inc., RCRA Permit Appeal No. PAD 002 312 791, RCRA Permit Appeal No. 90-27; 1993 EPA App. Lexis 17; 4 E.A.D. 748 (EAB 1993); finding that "The objective of the RFI report "shall be to ensure that the investigation data are sufficient in quantity and ... quality to describe the nature and extent of contamination, potential threat to human health and the environment, and to support the Corrective Measures Study" (emphasis added).

In re GSX Services of South Carolina, Inc., RCRA Permit Appeal No. 89-22; 1992 EPA App. Lexis 77; 4 E.A.D. 451 (EAB 1992); finding that "It is well settled that the Agency need not definitively establish that a release has occurred before imposing corrective action requirements. Rather the Agency may impose such requirements where it suspects a release or determines that a release is likely to have occurred." "[a]lthough the 3008(h) Order indicated that there were no visible signs of a release, the units were not easily accessible and a reevaluation of the sampling report provided by GSX indicated that some soil contamination had occurred... Under the circumstances we agree that further investigation is warranted." (emphasis added).

In re Exxon Company, U.S.A., RCRA Permit Appeal No. 94-8; 1995 EPA App. Lexis 14; 6 E.A.D. 32 (EAB 1995); finding that "The cases make clear that Exxon's suggestion that no investigation of a sewer system can be required absent "confirmed evidence of a release" is mistaken. To require an owner/operator to conduct further investigation of a SWMU, the Region need not have conclusive evidence of a release, but instead only evidence of a likely or suspected release." "The question we consider therefore is whether the record includes sufficient evidence of a "likely or suspected release" from the Exxon refinery's sewer system to support imposition of the proposed RFI requirements." "The site-specific evidence in this case is sufficient, when considered in the context of the RCRA program's experience with similar units at other facilities, to justify a requirement for investigation of Exxon's facility-wide sewer system." (emphasis added).

In re Metalworking Lubricants Co., RCRA Permit Appeal No. 93-4; 1994 EPA App. Lexis 17; 5 E.A.D. 181 (EAB 1994); finding that

"The permit term is in all material respects identical to § 264.101(c), which states: The owner or operator must implement corrective actions beyond the facility property boundary line, where necessary to protect human health or the environment, unless the owner or operator demonstrates to the satisfaction of the Regional Administrator that, ... the owner or operator was unable to obtain the necessary permission to undertake such actions." "This obligation clearly applies to the "owner or operator" of the permitted facility... It clearly applies whenever a release has migrated beyond the facility boundary as necessary to protect human health or the environment, irrespective of when the release occurred." (emphasis added).

In re GMC Delco Remy, RCRA Permit Appeal No. 95-11; 1997 EPA App. Lexis 10; 7 E.A.D. 136 (EAB 1997); finding that "in the early stages of corrective action, especially the initial identification of a SWMU, need not be based on irrefutable proof but can instead be grounded on reasonable suspicions. It is well settled that the Agency need not definitively establish that a release has occurred before imposing corrective action requirements." "This approach of not requiring conclusive evidence is necessitated by the fact that detecting subsurface contamination must proceed incrementally, in steps, often beginning with very incomplete information." (emphasis added).

In re Rohm and Haas Co., RCRA Permit Appeal No. 98-2; 2000 EPA App. Lexis 26; (October 5, 2000); upholding a condition that the Region may require the company to investigate any SWMUs the company discovers during the term of the permit upon the Region's determination that such investigation is necessary. "As explained in Agency corrective action guidance, the purpose of confirmatory sampling is to confirm the existence of suspected releases, and eliminate from further consideration and study releases that have not occurred or have been adequately remedied. See ANPR, 61 [Fed. Reg.] at 19,443 [1996]. Confirmatory sampling is designed to precede the RFI... so that site characterization conducted at the RFI stage can 'focus ... [on] areas and releases which constitute the greatest risk or potential risks to human health or the environment.' See 61 Fed. Reg. at 19,444." (emphasis added).

In re Chevron USA, Inc. Philadelphia Refinery, RCRA Permit Appeal No. 89-26; 1990 EPA App. Lexis 33 (December 31, 1990); finding that "although the Agency's remedial authority under § RCRA 3004(u) is expressly limited to releases from SWMUs, other RCRA provisions confer authority to require cleanup of releases of hazardous waste (not just SWMU releases) from an interim status facility where necessary to protect human health or the environment." "The Agency may also require cleanup of a non-SWMU release of hazardous waste through an enforcement action for illegal disposal. See 50 Fed. Reg. 28702, 28712-13 (July 15, 1985)" (emphasis added).

In re Caribe General Electric Products, Inc., RCRA Permit Appeal No. 98-3; 2000 EPA App. Lexis 3; 8 E.A.D. 696 (EAB 2000); finding that the basis for the Agency's corrective action "authority is a fact-specific showing by the Region that corrective action with regard to a particular AOC is necessary to protect human health or the environment." and that corrective action for contamination outside the facility's is appropriate where "the contamination 'is migrating or has migrated' to the off-site area from the facility." The Agency's designation of an off-site AOC was satisfied where there was indication of "contamination or potential contamination, of the river sediments by 'hazardous waste' or 'hazardous constituents.'" (emphasis added).

In re Liquid Chemical, Corp. Inc., Dkt. No. RCRA-09-88-004; 1989 EPA RJO Lexis 1; (August 15, 1989); finding that the issue is "not whether EPA has shown a precise and quantifiable harm but whether EPA has shown a potential for harm, such that the corrective actions called for in the initial order (the study and the plan) should be implemented." "In the present case, EPA has made such a showing. The releases ... into the soil and groundwater at [the] facility have not been adequately measured and analyzed. Without knowing the extent of releases at the facility their potential to cause harm to human health or the environment can not be dismissed." (emphasis added).

The Agency's Interim Status Corrective Action Authority (December 16, 1985) which provides the following guidance for corrective action orders under RCRA Section 3008(h):

"Whenever on the basis of any information the Administrator determines" The opening clause of Section 3008(h) authorizes the Agency to make the determination that there is or has been a release of hazardous waste into the environment on the basis of 'any information'. Appropriate information can be obtained from a variety of sources, including data from laboratory analyses of soil, air, surface water or ground water samples, observations recorded during inspections, photographs, and facts obtained from facility records.

The reference to a determination by the Administrator should be considered in the context of the term 'any information'. To satisfy any requirement imposed by the statute, an order should contain a specific determination. A civil referral should also be based on a written determination that there is or has been a release.

" . . . that there is or has been a release . . . into the environment" The trigger for issuing Section 3008(h) orders and initiating civil referrals is the existence of information that there is or has been a release, which is a lower threshold than the showing of 'substantial hazard' under RCRA Section 3013 or 'imminent and substantial endangerment' under RCRA Section 7003 or CERCLA Section 106. While the statute does not define the term 'release', the Agency believes that, given the broad remedial purpose of Section 3008(h), the term should encompass at least as much as the definition of release under CERCLA. See 42 USC Section 9601(22). Therefore a release is any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping or disposing into the environment. The exemptions described in the CERCLA definition are considered inapplicable or inappropriate for RCRA purposes, however, and are not included in the RCRA definition.

It is not necessary to have actual sampling data to show a release. An inspector may find other evidence that a release has occurred, such as a broken dike at a surface impoundment. Less obvious indications of release might also be adequate to make the determination. For example, the Agency could have sufficient information on the contents of

a land disposal unit, the design and operating characteristics of the unit, and the hydrogeology of the area in which the unit is located to conclude that there has been a release to groundwater.

In addition to on-site information gathering undertaken specifically to support a Section 3008(h) action, other sources that may provide information releases include:

- * Inspection Reports.
- * RCRA Part A and Part B permit applications.
- * Responses to RCRA Section 3007 information requests.
- * Information obtained through RCRA Section 3013 orders.
- * Notifications required by CERCLA Section 103.
- * Information-gathering activities concluded under CERCLA Section 104.
- * Informants' tips or citizens' complaints corroborated by supporting information.

A determination that there is or has been a release does not require that specific amounts of hazardous waste or hazardous constituents be found in the environment. Quantities or concentrations of hazardous wastes or hazardous constituents should be considered when ordering interim or complete corrective actions, however, because response actions compelled by the Agency must be necessary to protect human health or the environment.

The Agency's National RCRA Corrective Action Strategy (Office of Solid Waste and Emergency Response, October 3, 1986), provides that "when conducting RFAs investigators may become aware of other types of releases ... or sources of contamination not related to solid waste management units, but which merit further investigation and characterization by the owner / operator. Likewise, certain areas at facilities that are not solid waste management units may be identified as likely to be causing serious environmental problems, but about which little or no actual evidence of contamination is available; such situations may merit preliminary, RFA-type investigations to be conducted by owner / operators to verify releases. As explained previously, releases which are not linked to solid waste management units may

be addressed using Section 3008(h) or other enforcement authorities." (emphasis added).

In re Altus Air Force Base, U.S. EPA Docket No. RCRA-VI-002(h)-95-H; 1996 EPA RJO Lexis 10 (October 28, 1996); in which the Agency found as follows:

"May the EPA seek investigation in other areas away from the immediate site of the documented release? The EPA's long-term consistent approach has been in the affirmative as have the courts that have reached the issue."

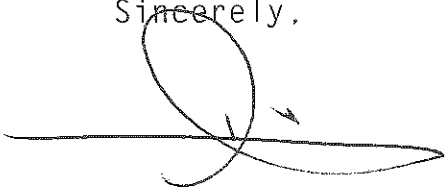
"Respondent argues, too, that the EPA must have evidence of a release before it can require corrective action at a listed SWMU, and that the EPA has not provided information that a release has occurred at the of the SWMUs or areas. It seems fairly well settled that a permittee (hence an operator of an interim status facility) may be required to conduct detection activities where necessary to determine whether a suspected or potential release requires a more complete investigation. There may be gaps of information that suggest the proper path is to take a phased approach to a release investigation, sometimes called 'verification monitoring,' before requiring full-scale investigation. All the EPA needs is evidence of a likely or suspected release." (emphasis added).

In accord with the above authority, EPA suspects, and is prepared to determine that it is likely that hazardous waste contamination from the HST Site migrated from the SWMUs on the Site to areas of soil and creek sediment outside of the Site, and that HST is obligated to take the first incremental steps to determine the amount and extent of such contamination. Since the steps that EPA is asking HST to take are reasonable, well supported in precedent, and not extensive (so should not involve significant expense), we again urge HST to agree to them in order for both sides to avoid the cost and time of litigating over them.

I will await your response regarding HST's willingness to undertake the corrective action steps set forth in my letter dated August 8. Our call with the Presiding Officer is set for Thursday September 4. If you want to discuss anything by

telephone, my telephone number is (312) 886-6663. My email address is "daugavietis.andre@epa.gov."

Sincerely,

A handwritten signature in black ink, consisting of a large, stylized loop followed by a horizontal line that extends to the right and then curves back up to cross the loop.

Andre Daugavietis
Associate Regional Counsel

cc: J. Garavanta, HST
B. Freeman, 9J ✓
P. Quackenbush, MDEQ

bcc: G. Hamper, 9J

addresses for cc's:

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Director, Regulatory Affairs and Product Acceptance
Henkel Surface Technologies
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HONIGMAN

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Kenneth C. Gold

313-465-7394

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kgold@honigman.com

Via U.S. Mail

Via Facsimile

July 30, 2003

Ms. Regina M. Kossek
Presiding Officer
U.S. Environmental Protection Agency, Region 5
77 West Jackson Boulevard
Chicago, IL 60604-3590

Re: Status Report: In the Matter of Henkel Surface Technologies, Respondent,
Docket No. RCRA (3008h)-05-2002-0004

Dear Judge Kossek:

As required by your June 5, 2003 Order, on behalf of Henkel Surface Technologies ("HST"), this letter serves as a status report regarding the above-referenced matter, which involves HST's property in Morenci, Michigan ("Site").

Since HST's May 28, 2003 status report, the United States Environmental Protection Agency, Region 5 ("U.S. EPA") and HST met in Chicago on July 15, 2003 to discuss the conclusions of the supplemental risk assessment, dated April 22, 2003 ("Supplemental Risk Assessment"), performed by TechLaw, Inc. ("TechLaw") on behalf of U.S. EPA. Attached is a July 24, 2003 letter from HST to U.S. EPA which summarizes HST's understanding of the outcome of that meeting.

At this time, HST understands that U.S. EPA is preparing a letter to notify HST of additional work, if any, that U.S. EPA believes HST should perform in connection with the property. Assuming that U.S. EPA sends the letter, as it has indicated, in the very near future, HST intends to review and respond to the letter in time to be in a position to advise you regarding the likelihood of a settlement in this matter during the conference call scheduled for September 4, 2003.

Respectfully yours,



Kenneth C. Gold

Attachment

cc: Andre Daugavietis, Esq., Office of Regional Counsel, U.S. EPA Region 5 ✓
DET_B\377260.2

VIA FACSIMILE

July 24, 2003

Andre Daugavietis, Esq.
Office of Regional Counsel (C-14J)
United States Environmental Protection
Agency, Region 5
77 West Jackson Boulevard
Chicago, IL 60604-3590

Re: Henkel Surface Technologies, RCRA (3008h)-05-2002-0004
Meeting with U.S. Environmental Protection Agency (U.S. EPA), July 15, 2003

Dear Mr. Daugavietis:

Thank you again for taking the time to meet with me and other representatives of Henkel Surface Technologies (HST) on July 15, 2003, at the U.S. EPA Region 5 offices in Chicago. Attending on behalf of HST were Jack Garavanta of HST, Jeffrey Bolin of The Dragun Corporation, Glenn Young, in-house counsel for Henkel Corporation, and me. Attending on behalf of U.S. EPA were George Hamper, Brian Freeman, you, and Jennifer Pollom, a U.S. EPA student extern.

The meeting focused on the eight conclusions of the Supplemental Risk Analysis (SRA), dated April 22, 2003, by U.S. EPA's contractor, TechLaw, Inc. (TechLaw). This letter summarizes the outcome of our discussion regarding those conclusions.

TechLaw SRA Conclusion 1. "Waste Storage Area 6 has lead contamination that greatly exceeds that MDEQ Part 201 industrial II draft screening criterion. Additional characterization of the area is needed. Remediation will be required."

Discussion outcome. HST disagreed that it has any legal obligation to further study or remediate any contamination outside its fence for reasons including, but not limited to, the fact that contamination has not been confirmed to be on HST's property and source of the contamination is not known but clearly predates HST's presence on the site. Nevertheless, HST stated that it is willing to consider addressing this area as part of an overall agreement on the remaining open issues.

TechLaw SRA Conclusion 2. "There is groundwater contamination. While deed restrictions limit the use of groundwater, additional restrictions must be in place to limit

July 24, 2003

Andre Daugavietis

Page 2

construction activities to prevent any accidental ingestion of groundwater by a construction worker. This also relates to any utility worker requiring subsurface access."

Discussion outcome. HST stated that it is willing to impose appropriate restrictions on groundwater use and to require appropriate protective measures in the event of worker exposure to groundwater as part of an overall agreement on the remaining open issues. The parties agreed that an acceptable means for accomplishing this would be a restrictive covenant under Michigan law.

In addition, U.S. EPA agreed to identify the source of TechLaw's assumption in the SRA that construction workers may accidentally ingest 0.5 liter of groundwater per day.

TechLaw SRA Conclusion 3. "No data is available concerning potential contamination of sediments and surface water in Bean Creek. Characterization of these media is required to complete the evaluation of risk. As the groundwater will mix with surface water, consideration will need to be given for mixing."

Discussion outcome. HST stated that it believes that the site soil and groundwater data indicates that contamination from the site has not impacted the creek. HST also stated that it believes that U.S. EPA must support any demand that HST test the Bean Creek surface water or sediments with adequate information that contamination exists in the surface water or sediments of the creek and that a nexus exists between such contamination and the HST property, and that U.S. EPA has not produced any such information. U.S. EPA stated that it will consider whether U.S. EPA will test the Bean Creek surface water and sediments.

TechLaw SRA Conclusion 4. "Background soil data is limited and not useful. As such, all contamination is assumed to be due to site activities."

Discussion outcome. The parties agreed that this conclusion raises no relevant issues.

TechLaw SRA Conclusion 5. "No background groundwater data is available and limited data on hydrology and hydrogeology of the site is available. Additional characterization hydrologic and hydrogeologic data must be provided."

Discussion outcome. The parties agreed that this conclusion raises no relevant issues as long as HST does not assert the relevance of whether or not the on-site groundwater contamination is emanating from off-site sources.

HONIGMAN

July 24, 2003

Andre Daugavietis

Page 3

TechLaw SRA Conclusion 6. "The comparison to MDEQ Part 201 screening criteria does not account for cumulative effects across exposure pathways for each receptor. Additional evaluation of overall or cumulative hazards and risks may be warranted."

Discussion outcome. The parties agreed to table this issue for the time being because it is not clear at this time whether it will be a factor in any relevant decisions.

TechLaw SRA Conclusion 7. "There does not appear to be data across the entire Henkel site. For example, only select data associated with former hazardous waste Areas 1 through 7. The reports available do not discuss other activities at the site and whether there is potential for contamination outside of these limited areas."

Discussion outcome. HST stated that it believes that U.S. EPA must support any demand that HST test additional areas on the site with adequate information that contamination exists in such areas. U.S. EPA stated that it will review the existing site information and will notify HST regarding which, if any, areas on the site that it believes warrant additional testing.

TechLaw SRA Conclusion 8. "Ecological risks have not been evaluated. It is anticipated that exposure to contaminants in sediments and surface water of Bean Creek will drive ecological risks."

Discussion outcome. The parties agreed that this conclusion does not raise any relevant issues at this time.

In addition to the foregoing, U.S. EPA agreed during our meeting that it does not know of any relevant site corrective action issues other than those discussed above.

At the conclusion of our meeting, U.S. EPA stated that it would send a letter notifying HST of additional work, if any, that U.S. EPA desires that HST perform in connection with the property. The target date for sending the letter was identified as the end of July 2003.

HST believes that our meeting was productive. We look forward to receiving your letter and to continuing to work with U.S. EPA toward a resolution of this matter. If you would like to discuss the foregoing, please do not hesitate to contact me.

Sincerely,



Kenneth C. Gold

HONIGMAN

July 24, 2003

Andre Daugavietis

Page 4

cc: George Hamper, U.S. EPA
Brian Freeman, U.S. EPA
Jack Garavanta, HST
Glenn Young, Esq., Henkel Corporation
Jeffrey Bolin, The Dragun Corporation

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF.

C-14J

May 27, 2003

Regina M. Kossek
Regional Presiding Officer
U.S. Environmental Protection Agency, Region 5
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

**Status Report: In the Matter of Henkel Surface Technologies,
Respondent, Docket No. RCRA(3008h)-05-2002-0004**

Dear Ms. Kossek:


This is Complainant's status report in this matter.

Since the last status report, EPA responded to Respondent Henkel Surface Technologies (HST) comments on the risk assessment process and results, and has received the results of the supplemental risk assessment performed on the risks to human health posed by site conditions. This risk assessment was based on all available data for the site, including historic soil and groundwater contamination level data. EPA provided copies of the supplemental risk assessment to HST earlier this month. HST is reviewing the supplemental risk assessment, and EPA hopes to hear from the company in the near future regarding whether the company believes that an agreed resolution can be reached between the parties to address the site conditions.

The parties plan to confer regarding further action needed at the Site to address any significant risks at the Site, and whether the parties can agree to the terms of a compliance order for this Site. The parties hope to confer during late June. EPA believes that it should become clear fairly quickly in those talks whether the parties will be able to reach agreement on the terms of an order in this matter.

Accordingly, Complainant requests another 90 day time-frame to next report on the status of this matter. Mr. Gold has indicated that Respondent concurs in this request.

Respectfully Submitted,



Andre Daugavietis
Associate Regional Counsel

cc: Ken Gold, Esq.
Brian Freeman 9J
C. Spencer, MDEQ
P. Quackenbush, MDEQ
Regional Hearing Clerk

addresses for cc's:

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

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REPLY TO THE ATTENTION OF: C-14J 03 MAR -7 10:10

March 6, 2003

Regina M. Kossek
Regional Presiding Officer
U.S. Environmental Protection Agency, Region 5
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

Status Report: In the Matter of Henkel Surface Technologies,
Respondent, Docket No. RCRA(3008h)-05-2002-0004

Dear Ms. Kossek:

This constitutes Complainant's status report in this matter. Respondent has submitted its status report dated February 27, 2003.

Since the last status report, EPA has had a risk assessment performed on the risks to human health posed by site conditions. This risk assessment was based on the September 17 and 18, 2002 soil and groundwater sampling conducted by representatives of Respondent Henkel Surface Technologies (HST), at HST's property in Morenci, Michigan (Site), and summarized in a report dated December 20, 2002. EPA provided a copy of the risk assessment to HST representatives as soon as it was received. HST expressed concern that the risk assessment did not take into account historic soil and groundwater contamination level data at the Site. EPA is currently having a supplemental risk assessment performed that also addresses historic data for the Site.

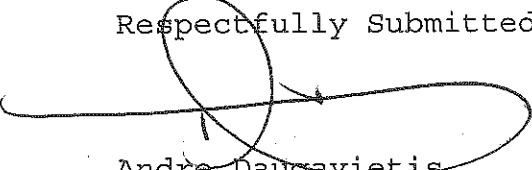
EPA is scheduled to receive the supplemental risk assessment by the end of March. Once the supplemental risk assessment report is completed, EPA plans to share the new report with HST. Subsequently EPA plans to respond to HST's comments on the risk assessment process and results. EPA then plans to confer with HST regarding any further action needed at the Site to address any significant risks at the Site, and

whether the parties can agree to the terms of a compliance order for this Site.

For the record, EPA does not agree with some of HST's conclusions regarding the results of the original risk assessment. As set forth above, EPA plans to respond to HST on the risk assessment issues after receipt and evaluation of the new risk assessment report. At issue in this matter is whether the Site meets the Michigan "part 201 standards" and whether or not the Site presents no undue risk to health or the environment. EPA continues to believe that the risk assessments provide valuable information for evaluating these issues.

EPA hopes that the parties can meet or confer about 30-45 days following receipt of the new risk assessment. It should become clear fairly quickly in those talks whether the parties will be able to reach agreement on the terms of an order in this matter. Accordingly, as did Respondent, Complainant requests another 90 day time-frame to next report on the status of this matter.

Respectfully Submitted,



Andre Daugavietis
Associate Regional Counsel

cc: Ken Gold, Esq.
Brian Freeman 9J
C. Spencer, MDEQ
P. Quackenbush, MDEQ
Regional Hearing Clerk

CASE NAME: Henkel Surface Technologies
DOCKET No. RCRA (3008h)-05-2002-0004

CERTIFICATE OF SERVICE

I hereby certify that today I filed the original of Complainant's Status Report in the office of the Regional Hearing Clerk (E-19J), U.S. Environmental Protection Agency, Region 5, 77 W. Jackson Blvd., Chicago, IL 60604-3590.

I then caused true and correct copies of the filed document to be delivered by hand to:

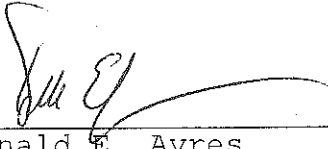
Regina M. Kossek
Regional Judicial Officer (C-14J)
U.S. Environmental Protection Agency, Region 5
77 W. Jackson Blvd.
Chicago, IL 60604

and promptly mailed via first-class mail to the following:

Kenneth C. Gold, Esq.
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660 Woodward Avenue
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Michigan Department of Environmental Quality
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Dated: 07 March, 2003


Donald E. Ayres (C-14J)
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U.S. ENVIRONMENTAL
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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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REPLY TO THE ATTENTION OF

C-14J

February 13, 2003

Regina M. Kossek
Regional Presiding Officer
U.S. Environmental Protection Agency, Region 5
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

**Status Report: In the Matter of Henkel Surface Technologies,
Respondent, Docket No. RCRA(3008h)-05-2002-0004**

Dear Ms. Kossek:

In response to the Order dated December 18, 2003, this is the Parties' joint status report in this matter. As previously reported, the parties have reached agreement in principle on the remaining issues in the case, including the issue of sediment sampling. The task remaining for the Parties is to negotiate and finalize legal terms of settlement.

On December 11, 2003, EPA provided Henkel Surface Technologies (HST) with a draft of an Agreed Order that would resolve this matter. HST provided EPA with initial feedback on several aspects of the Order on December 16. HST provided EPA with substantive comments on the Order on February, 9, 2004. EPA plans to revise the Order based on HST's comments. It may be necessary to hold discussions on some of the remaining issues. The Parties request an opportunity to either file an Agreed Order or to report on the status of the negotiation process by April 9, 2004.

Respectfully Submitted,

Andre Daugavietis
Associate Regional Counsel

Kenneth C. Gold
Counsel for Henkel
Surface Technologies

cc: Ken Gold, Esq.
Brian Freeman, 9J
C. Spencer, MDEQ
P. Quackenbush, MDEQ
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525 W. Allegan
P.O. Box 30241
Lansing, MI 48909

CASE NAME: Henkel Surface Technologies
DOCKET No. RCRA (3008h)-05-2002-0004

CERTIFICATE OF SERVICE

I hereby certify that today I filed the original and one copy of this Joint Status Report in the office of the Regional Hearing Clerk (E-19J), U.S. Environmental Protection Agency, Region 5, 77 W. Jackson Blvd., Chicago, IL 60604-3590.


I further certify that I then caused true and correct copies of the filed document to be promptly delivered by hand to:

Regina M. Kossek (C-14J)
Regional Presiding Officer
U.S. Environmental Protection Agency, Region 5
77 W. Jackson Boulevard
Chicago, IL 60604-3590

and mailed via first class mail to:

Kenneth C. Gold, Esq.
Honigman Miller Schwartz and Cohn, LLP
660 Woodward Avenue
2290 First National Building
Detroit, MI 48226

Dated: 13 February, 2004


Donald E. Ayres (C-14J)
Paralegal Specialist, MM2-4
U.S. Environmental Protection Agency
77 W. Jackson Blvd.
Chicago, IL 60604-3590
(312) 353-6719



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

RECEIVED
REGIONAL HEARING
11/27/02

REPLY TO THE ATTENTION OF: 02 NOV 27 P2:12
C-14J

U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION 5

November 27, 2002

Regina M. Kossek
Regional Presiding Officer
U.S. Environmental Protection Agency, Region 5
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

Status Report: In the Matter of Henkel Surface Technologies,
Respondent, Docket No. RCRA(3008h)-05-2002-0004

Dear Ms. Kossek:

This constitutes Complainant's status report in this matter.
Respondent has chosen to submit a separate status report.

On September 17 and 18, 2002, soil and groundwater sampling
was conducted by representatives of Respondent Henkel
Surface Technologies ("HST"), at HST's property in Morenci,
Michigan ("Site"). As part of the site investigation, the
U.S. Environmental Protection Agency ("EPA") agreed with
HST's proposal for the sampling procedures, etc..

HST provided a "summary report" to EPA regarding the results
of the sampling. The report was prepared by HST's
consultant, The Dragoon Corporation, and is dated October 30,
2002. EPA has also obtained similar data from the sampling
at the Site.

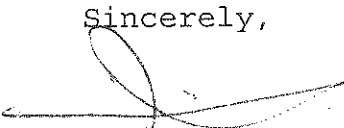
In order to assess any human health risk posed by levels of
contamination detected at the Site, EPA is in the process of
having a risk assessment performed on the results of the
sampling. The results of the risk assessment are due in
slightly less than 60 days (mid-January). EPA believes that
the risk assessment will provide information critical to the
terms of a compliance order for this Site.

At least to date, EPA does not understand or agree with
Respondent's opposition to the risk assessment. EPA does

not believe that the summary report has conclusively established that the Site meets the Michigan "part 201 standards" or that it presents no undue risk to health or the environment. The risk assessment should provide valuable information for evaluating such claims.

The parties plan to meet in the 30 days following receipt of the risk assessment. It should become clear fairly quickly in those talks whether the parties will be able to reach agreement on the terms of an order in this matter. Accordingly, Complainant requests a 90 day time-frame to next report on the status of this matter.

Sincerely,



Andre Daugavietis
Associate Regional Counsel

cc: Ken Gold, Esq.
Brian Freeman 9J
C. Spencer, MDEQ
P. Quackenbush, MDEQ

addresses for cc's:

Kenneth C. Gold, Esq.
Honigman Miller Schwartz and Cohn LLP
660 Woodward Avenue
2290 First National Building
Detroit, Michigan 48226

Clay Spencer
Michigan Dept. of Environmental Quality
Waste Management Division
Constitution Hall
525 W. Allegan
P.O. Box 30241
Lansing, MI 48909

Pete Quackenbush
Michigan Dept. of Environmental Quality
Waste Management Division
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KENNETH C. GOLD
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FAX: (313) 465-7395
E-MAIL: kcg@honigman.com

LANSING, MICHIGAN
BINGHAM FARMS, MICHIGAN

November 27, 2002

Regina M. Kossek
Presiding Officer
U.S. Environmental Protection Agency, Region 5
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

**Re: Status Report: In the Matter of Henkel Surface Technologies, Respondent,
Docket No. RCRA (3008h)-05-2002-0004**

Dear Judge Kossek:

As required during our status conference on August 27, 2002, on behalf of Henkel Surface Technologies ("HST"), this letter serves as a status report regarding the above-referenced matter, which involves HST's property in Morenci, Michigan ("Site").

Since the August 29, 2002 status report, HST's consultant, The Dragun Corporation ("Dragun"), performed a site investigation in accordance with a Work Plan approved by the U.S. Environmental Protection Agency ("EPA") and on October 30, 2002, timely submitted to EPA its report on the results. The report concluded that Site conditions do not pose an unacceptable risk to human health under the Michigan Department of Environmental Quality's ("MDEQ") risk-based criteria under Part 201 of Michigan's Natural Resources and Environmental Protection Act ("Part 201"), Mich. Comp. Laws § 324.20101 *et seq.* ("NREPA").

HST believed, and continues to believe, that Dragun's conclusion, coupled with the November 2000 Memorandum of Understanding ("MOU") between EPA and MDEQ, in which EPA accepts the Part 201 criteria as applicable corrective action criteria, should result in a conclusion by EPA that no further action is necessary at this Site.¹

Despite EPA's approval of the Work Plan that referenced use of the Part 201 criteria, despite Dragun's conclusion based on that Work Plan, and despite the MOU, EPA informed HST

¹ The MOU states, in relevant part, that "Region 5 has reviewed and evaluated the clean-up standards and related processes for investigation and remediation under Part 201 of the NREPA and has determined that the MDEQ's use of the Part 201 cleanup standards and related processes, as used in the state's hazardous waste management program under Part 111 of the NREPA, are an acceptable way of achieving the objectives of the authorized Part 111 Corrective Action program."

Judge Regina M. Kossek

November 27, 2002

Page 2

by e-mail on November 12 that it would perform a risk assessment based on Dragan's results. By letter dated November 18, 2002, HST strongly objected to EPA's performance of a risk assessment as unnecessary, redundant, and inconsistent with the MOU. A copy of that letter and the MOU are attached.

In response, EPA verbally advised HST's counsel that EPA intends to complete the risk assessment; that it will share the results with HST; and that the parties can discuss at that time whether any additional work is needed at the Site. EPA has stated that the results of the risk assessment are due within 60 days, and that the parties should plan to meet within 30 days after receipt of the risk assessment.

HST continues to strongly disagree with EPA's performance of a risk assessment and HST reserves all rights, including the right to object to any use by EPA of the risk assessment in this matter.

Be that as it may, HST remains committed at this time to seeking an amicable resolution of this matter. Therefore, HST has no option but to await the results of the risk assessment and, at that time, to consider participating in a meeting with EPA to determine whether an agreement can then be reached on a final resolution of this matter.

It is our understanding that Andre Daugavietis, Associate Regional Counsel, EPA Region 5, will be submitting his own status report requesting additional time.

Sincerely,



Kenneth C. Gold

Attachments

cc: Andre Daugavietis, Esq., Office of Regional Counsel, U.S. EPA Region 5 ✓



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

RECEIVED
REGIONAL HEARING
CLERK

REPLY TO THE ATTENTION OF: '04 SEP 20 P1:26

C-14J

US ENVIRONMENTAL
PROTECTION AGENCY
REGION V

September 20, 2004

Regina M. Kossek
Regional Presiding Officer
U.S. Environmental Protection Agency, Region 5
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

**Status Report: In the Matter of Henkel Surface Technologies,
Respondent, Docket No. RCRA(3008h)-05-2002-0004**

Dear Ms. Kossek:

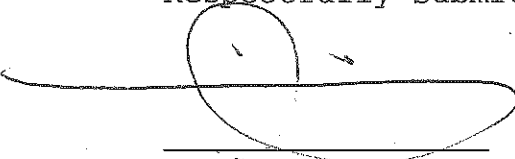
In response to the Order dated July 16, 2004, this is Complainant's status report in this matter. As previously reported, EPA and Henkel Surface Technologies (HST) had reached agreement in principle on resolving the case, and, starting in late 2003, negotiated to attempt to finalize legal terms of a settlement.

In July, EPA sampled creekbed sediments near the HST site. EPA has recently received the sample results and the constituents of interest were found to be below levels of concern. This resolves the major issue in the case, and, in EPA's view, the last potential obstacle to an agreed course of action for the site. In EPA's view, what remains to be accomplished is clean up of a relatively small area on or near the site, and implementation of steps to ensure that the environment and public remain protected from low level constituents remaining at the site. This would also allow the site to be returned to productive use.

In EPA's view, after the sampling results that were obtained from the creek sediments, the issues have been narrowed to the extent that was possible, and the major area of potential uncertainty has been made certain. EPA plans to submit a "streamlined" draft order to HST within the next three weeks. EPA hopes that HST is interested in promptly reaching agreement on remaining terms of settlement (which

have now been back and forth between the parties for most of a year) which both parties can live with. This should become apparent after HST reviews the remaining provisions of the draft proposed order. We appreciate your patience while this matter has progressed, and now hope for a quick resolution of the relatively minor remaining issues.

Respectfully Submitted,



Andre Daugavietis
Associate Regional Counsel

cc: Ken Gold, Esq.
Brian Freeman, 9J
C. Spencer, MDEQ
P. Quackenbush, MDEQ
Regional Hearing Clerk

addresses for cc's:

Kenneth C. Gold, Esq.
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660 Woodward Avenue
2290 First National Building
Detroit, Michigan 48226

Clay Spencer
Michigan Dept. of Environmental Quality
Waste Management Division
Constitution Hall
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Pete Quackenbush
Michigan Dept. of Environmental Quality
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KENNETH C. GOLD
TELEPHONE: (313) 465-7394
FAX: (313) 465-7395
E-MAIL: kgz@honigman.com

LANSING, MICHIGAN
BINGHAM FARMS, MICHIGAN

November 27, 2002

Regina M. Kossek
Presiding Officer
U.S. Environmental Protection Agency, Region 5
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

**Re: Status Report: In the Matter of Henkel Surface Technologies, Respondent,
Docket No. RCRA (3008h)-05-2002-0004**

Dear Judge Kossek:

As required during our status conference on August 27, 2002, on behalf of Henkel Surface Technologies ("HST"), this letter serves as a status report regarding the above-referenced matter, which involves HST's property in Morenci, Michigan ("Site").

Since the August 29, 2002 status report, HST's consultant, The Dragun Corporation ("Dragun"), performed a site investigation in accordance with a Work Plan approved by the U.S. Environmental Protection Agency ("EPA") and on October 30, 2002, timely submitted to EPA its report on the results. The report concluded that Site conditions do not pose an unacceptable risk to human health under the Michigan Department of Environmental Quality's ("MDEQ") risk-based criteria under Part 201 of Michigan's Natural Resources and Environmental Protection Act ("Part 201"), Mich. Comp. Laws § 324.20101 *et seq.* ("NREPA").

HST believed, and continues to believe, that Dragun's conclusion, coupled with the November 2000 Memorandum of Understanding ("MOU") between EPA and MDEQ, in which EPA accepts the Part 201 criteria as applicable corrective action criteria, should result in a conclusion by EPA that no further action is necessary at this Site.¹

Despite EPA's approval of the Work Plan that referenced use of the Part 201 criteria, despite Dragun's conclusion based on that Work Plan, and despite the MOU, EPA informed HST

¹ The MOU states, in relevant part, that "Region 5 has reviewed and evaluated the clean-up standards and related processes for investigation and remediation under Part 201 of the NREPA and has determined that the MDEQ's use of the Part 201 cleanup standards and related processes, as used in the state's hazardous waste management program under Part 111 of the NREPA, are an acceptable way of achieving the objectives of the authorized Part 111 Corrective Action program."

Judge Regina M. Kossek

November 27, 2002

Page 2

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In response, EPA verbally advised HST's counsel that EPA intends to complete the risk assessment; that it will share the results with HST; and that the parties can discuss at that time whether any additional work is needed at the Site. EPA has stated that the results of the risk assessment are due within 60 days, and that the parties should plan to meet within 30 days after receipt of the risk assessment.

HST continues to strongly disagree with EPA's performance of a risk assessment and HST reserves all rights, including the right to object to any use by EPA of the risk assessment in this matter.

Be that as it may, HST remains committed at this time to seeking an amicable resolution of this matter. Therefore, HST has no option but to await the results of the risk assessment and, at that time, to consider participating in a meeting with EPA to determine whether an agreement can then be reached on a final resolution of this matter.

It is our understanding that Andre Daugavietis, Associate Regional Counsel, EPA Region 5, will be submitting his own status report requesting additional time.

Sincerely,



Kenneth C. Gold

Attachments

cc: Andre Daugavietis, Esq., Office of Regional Counsel, U.S. EPA Region 5 ✓

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E-MAIL: kcg@honigman.com

August 29, 2002

Regina M. Kossek
Presiding Officer
U.S. Environmental Protection Agency, Region 5
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

Re: Status Report: In the Matter of Henkel Surface Technologies, Respondent,
Docket No. RCRA(3008h)-05-2002-0004

Dear Judge Kossek:

On June 26, 2002, representatives of Henkel Surface Technologies ("HST") and the U.S. Environmental Protection Agency ("U.S. EPA") held a telephone conference to discuss various issues relating to HST's property in Morenci, Michigan ("Site"). As a result of that discussion, HST agreed to perform certain site investigation work at the Site requested by U.S. EPA.

On July 18, 2002, HST's consultant, The Dragun Corporation, submitted to U.S. EPA a work plan for the agreed-upon work. By letter dated August 21, 2002, U.S. EPA approved the work plan. HST expects to commence the work in the near future and anticipates that a report on the results of the site investigation will be generated and submitted to U.S. EPA before the end of October 2002.

In a status conference on August 27, 2002, we discussed these developments with you and indicated that the parties are currently working cooperatively to resolve the matters at issue in this case. It was agreed that the next status report will be due on December 2, 2002, and that the status report will indicate whether the parties need an additional 30 days or other additional time to agree upon any further actions in response to the report or, in the alternative, if an immediate telephone conference is requested in order to facilitate decision on any disputed issues.

Andre Daugavietis, Associate Regional Counsel, U.S. EPA Region 5, has advised me that he agrees with and joins in this status report.

Sincerely,



Kenneth C. Gold

cc: Andre Daugavietis, Esq., Office of Regional Counsel, U.S. EPA Region 5

DET_B340301.1

HONIGMAN MILLER SCHWARTZ AND COHN LLP

Regina M. Kossek, Presiding Officer
August 29, 2002
Page 2

bcc: Jack Garavanta, Henkel Surface Technologies
Glenn Young, Esq., Henkel Corporation
Jeffrey A. Bolin, The Dragoon Corporation

DET_B340301.1

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5**

IN THE MATTER OF:)

Henkel Surface Technologies,)

Respondent.)
_____)

Docket No. RCRA (3008h)-05-2002-0004

CERTIFICATE OF SERVICE

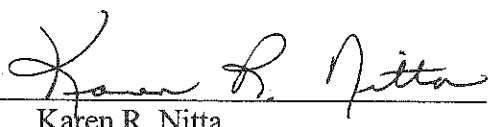
I hereby certify that the foregoing Status Report dated August 29, 2002 was sent this 29th day of August, 2002 via U.S. Mail to the following persons:

Regina M. Kosek
Presiding Officer
U.S. Environmental Protection Agency
Region 5
77 West Jackson Boulevard
Chicago, IL 60604-3590


Andre Daugavietis, Esq.
Office of Regional Counsel
U.S. Environmental Protection Agency
Region 5
77 West Jackson Boulevard
Chicago, IL 60604-3590

Dated: August 29, 2002

By: _____


Karen R. Nitta
Secretary

XXII. EFFECTIVE DATE

This Order shall become final upon execution by the parties as indicated below. 

IT IS SO ORDERED:

BY:



Margaret Guerriero, Director
Waste Pesticides and Toxics Division
U.S. Environmental Protection Agency
Region 5

2/14/05
Date

AGREED TO BY:

BY:



Gerald Kohlsmith, President
Henkel Corporation, N.A.
Henkel Surface Technologies
Division of Henkel Corporation
32100 Stephenson Highway
Madison Heights, MI 48071

February 4, 2005
Date

IN THE MATTER OF:

HENKEL SURFACE TECHNOLOGIES
MORENCI, MICHIGAN SITE
ADMINISTRATIVE ORDER
U.S. EPA I.D. #MID058723867

CERTIFICATE OF SERVICE

I hereby certify that I have caused a copy of the foregoing ADMINISTRATIVE ORDER to be served upon the person designated below, on the date below, by causing said copies to be deposited in the U.S. Mail, First Class and certified-return receipt requested, postage prepaid, at Chicago, Illinois, in an envelope addressed to:

Mr. Gerald Kohlsmith
Henkel Surface Technologies
A Division of Henkel Corp.
32100 Stephenson Highway
Madison Heights, MI 48071

I have further caused the original AGREED ADMINISTRATIVE ORDER and this CERTIFICATE OF SERVICE to be filed in the Office of the Regional Hearing Clerk located in offices of U.S. EPA, Region 5, 77 West Jackson Boulevard, Chicago, Illinois 60604, on the date below.

_____, 2005.

Secretary, RCRA Enforcement and Compliance Assurance Branch
U.S. EPA, Region 5

Gerald Phillips has accepted your meeting request

Begins: 08/28/2003 03:00 PM Local Time

Ends: 08/28/2003 04:00 PM Local Time

Title: EI 750 Determination-Henkel

Location: -No room information available-

Chair: Brian Freeman/R5/USEPA/US

To (required): Margaret Guerriero/R5/USEPA/US@EPA

cc (optional): George Hamper/R5/USEPA/US@EPA

Gerald Phillips/R5/USEPA/US@EPA

Joseph Boyle/R5/USEPA/US@EPA

Comments



Clay Spencer
<SPENCERC@michigan.gov>

To: Brian Freeman cc: Delores Montgomery, Peter Quackenbush, Ronald Stone
Subject: Re: Henkel

09/03/2003 01:50 PM

Brian-no data to be found in our records (as I suspected) at the records center. However there is some data results that are referred to-(2,500 ppm of PCBs and and some other file information that may be of (a little-if any) value that I can fax to you. Send me your fax number. I'll also put an e-mail together to see if we can track down the actual data to the two divisions involved (district supervisors) and to our lab director.

Evidently the main people involved were Linda Koivuniemi (Environmental Specialist) of the Air Quality Division (who did a RCRA Inspection) and Roy Schramek of the Water Quality Division ("Water Quality District Engineer"). This occurred before the Waste Management Division (now the Waste and Hazardous Materials Division) existed. I believe that there was formed (in that time period) a Hazardous Waste Division-(or section) but there was a file reference that there were no field staff in that division (or section) at that time. That is likely why we don't have these early records.

Clay Spencer, CHMM
Environmental Quality Analyst
Michigan Department of Environmental Quality
Waste and Hazardous Materials Division
Hazardous Waste Technical Support Unit
phone: 517-373-7968 fax: 517-373-4797
email: spencerc@michigan.gov
address: P.O. Box 30241, Lansing, MI 48909-7741

>>> <Freeman.Brian@epamail.epa.gov> 09/03/03 11:52AM >>>

Any chance of contacting Martin Jacobsen (even though he is officially retired) and see if maybe he remembers concentrations from that creek sampling event? I'd be glad to make the call, if necessary.

Brian

Clay Spencer

<SPENCERC@michigan.gov>

Freeman/R5/USEPA/US@EPA

Quackenbush <QUACKENP@michigan.gov>,
09/02/2003 03:36
<STONERA@michigan.gov>
PM
Quackenbush <QUACKENP@michigan.gov>,
<STONERA@michigan.gov>

To: Brian

cc: Peter

Ronald Stone

cc: Peter

Ronald Stone

bcc:

Fax to:

Subject: Henkel

Brian-I got your voice mail message regarding Bean Creek data from 1981.

I looked in our files located here-and there wasn't anything-but we do have a box of old files at our Records Center which I will go and take a look at tomorrow (Wednesday). I don't recall seeing actual analytical data on Bean Creek, however-but I'll take a look. I'm not sure how relevant data that old would be-anyway but I guess it is something.....just don't get your hopes up too high.....



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

C-14J

January 12, 2005

Kenneth C. Gold, Esq.
Honigman Miller Schwartz and Cohn LLP
660 Woodward Avenue
2290 First National Building
Detroit, Michigan 48226.

RE: Henkel Surface Technologies, RCRA (3008h)-05-2002-0004

Dear Mr. Gold:

Enclosed please find two originals of the Agreed Administrative Order to resolve this matter. This Order reflects the terms we have agreed to.

Please have both the originals of the Order signed on behalf of Henkel Surface Technologies and return them to me. After the Order is filed, we will return a signed original to you.

If you have any questions, please contact me. My telephone number is 312-432-4393, and my e-mail address is daugavietis.andre@epa.gov.

Sincerely,

A handwritten signature in black ink, appearing to be "A. Daugavietis", is written over a horizontal line.

A. Daugavietis
Associate Regional Counsel

Attachments

cc: J. Garavanta, HST (w/Attachment)
C. Spencer, MDEQ (w/Attachment)
P. Quackenbush, MDEQ (w/Attachment)

bcc: Brian P. Freeman 9J (w/o attachment)
George Hamper 9J (w/o attachment)

addresses for ccs:

Jack Garavanta
Director, Regulatory Affairs and
Product Acceptance
Henkel Surface Technologies
Division of Henkel Corporation
32100 Stephenson Highway
Madison Heights, MI 48071

Clay Spencer
Michigan Dept. of Environmental Quality
Waste Management Division
Constitution Hall
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P.O. Box 30241
Lansing, MI 48909

Pete Quackenbush
Michigan Dept. of Environmental Quality
Waste Management Division
Constitution Hall
525 W. Allegan
P.O. Box 30241
Lansing, MI 48909

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5

IN THE MATTER OF:)	
)	
Henkel Surface Technologies)	
A Division of Henkel Corp.	)	AGREED ADMINISTRATIVE ORDER
32100 Stephenson Highway)	
Madison Heights, MI 48071	)	U.S. EPA DOCKET NO.
)	
RE: Morenci, Michigan Site	)	Proceeding under
	)	Section 3008(h)
I.D.# MID058723867	)	of the Resource Conservation and
	)	Recovery Act of 1976, as amended,
RESPONDENT.	)	42 U.S.C. §6928(h).

I. JURISDICTION

A. This AGREED ADMINISTRATIVE ORDER (Order) is issued pursuant to the authority vested in the Administrator of the United States Environmental Protection Agency (EPA) by Section 3008(h) of the Solid Waste Disposal Act, commonly referred to as the Resource Conservation and Recovery Act of 1976 (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984, 42 U.S.C. §6928(h). The Administrator has delegated the authority to issue orders under Section 3008(h) of RCRA to the Director; Waste, Pesticides and Toxics Division; EPA Region 5.

B. This Order is issued to Henkel Surface Technologies Division of Henkel Corporation (Respondent), the owner of a facility and site at 322 Main Street, Morenci, Michigan (the Facility). This Order is based on information EPA has about the Facility, provides information EPA still requires from the Facility, is supported by the Administrative Record compiled by EPA (which is incorporated herein by reference), and is agreed to by Respondent. The Administrative Record is available for review

by Respondent and the public at EPA's office at 77 W. Jackson Street, Chicago, Illinois 60604.

II. PARTIES BOUND

A. This Order shall apply to and be binding upon Respondent and its officers, directors, employees, agents, and successors and assigns, and upon all persons, independent contractors, subcontractors, and consultants acting under or for Respondent.

B. No change in ownership or corporate or partnership status relating to the Facility will alter Respondent's responsibilities under this Order.

C. Respondent shall provide a copy of this Order to all contractors, subcontractors, laboratories, and consultants retained to conduct or monitor any portion of the work performed pursuant to this Order. Respondent shall do so within one (1) week of the effective date of this Order, or the date of such retention, and shall condition all such contracts on compliance with the terms of this Order.

D. Respondent shall give notice of this Order to any successor in interest prior to transfer of ownership or operation of the Facility, or any portion of it, and shall notify EPA no less than thirty (30) days prior to such transfer.

III. STATEMENT OF PURPOSE

A. The purposes of this Order are to ensure that the risks from the previous releases of hazardous wastes at or near the Facility are known and understood, and to mitigate any potential threats to human health or the environment. The issuance of this

Order requires the Respondent to: (1) perform specified corrective actions at the Facility to mitigate potential threats to human health or the environment from a specified area outside "Waste Area 6"; (2) provide a Description of Current Conditions report, describing the prior use history of the Facility, present and historical use of surrounding areas, the known nature and extent of contamination (including Bean Creek), and a brief synopsis of RCRA Closure work performed at the Facility; and (3) propose steps to be taken to mitigate potential risks and final corrective measures.

IV. DETERMINATIONS

After consideration of the Administrative Record, the Director; Waste, Pesticides and Toxics Division; EPA Region 5 has made the following findings of fact and determinations:

A. Findings of Fact

1. Respondent is a company doing business in the State of Michigan and is a person as defined in Section 1004(15) of RCRA, 42 U.S.C. §6903(15) and 40 CFR 260.10.

2. During 1988, Parker Chemical Company owned and operated the Facility at 322 W. Main Street, Morenci, Michigan 49256, a site previously owned and/or operated by Oxy Metals Corporation (a division of Occidental Chemical Company), Hooker Chemical Company, and Ford Motor Company. For purposes of applicability of this Order, the Facility does not include land that Respondent previously transferred to the City of Morenci or two separate

lots to the east, across Mill Street from the fenced area of the Facility.

3. In April of 1987, Henkel Corporation acquired Parker Chemical and Parker Chemical continued to operate the Facility. Amchem Products, Inc. and Parker Chemical Inc. merged into Henkel Corporation on January 1, 1989.

4. Respondent was a generator of hazardous waste and, by its ownership and operation of the Facility, is an owner of a hazardous waste management facility.

5. Respondent engaged in the storage and disposal of hazardous waste at the Facility subject to Interim Status requirements at 40 CFR Part 265.

6. Respondent filed a Part A application to store hazardous waste in drums at the Facility and obtained interim status for that process.

7. The Facility was operated as a hazardous waste management facility on and after November 19, 1980, the applicable date which renders facilities subject to interim status requirements or the requirement to have a permit under Sections 3004 and 3005 of RCRA, 42 U.S.C. §§6924 and 6925.

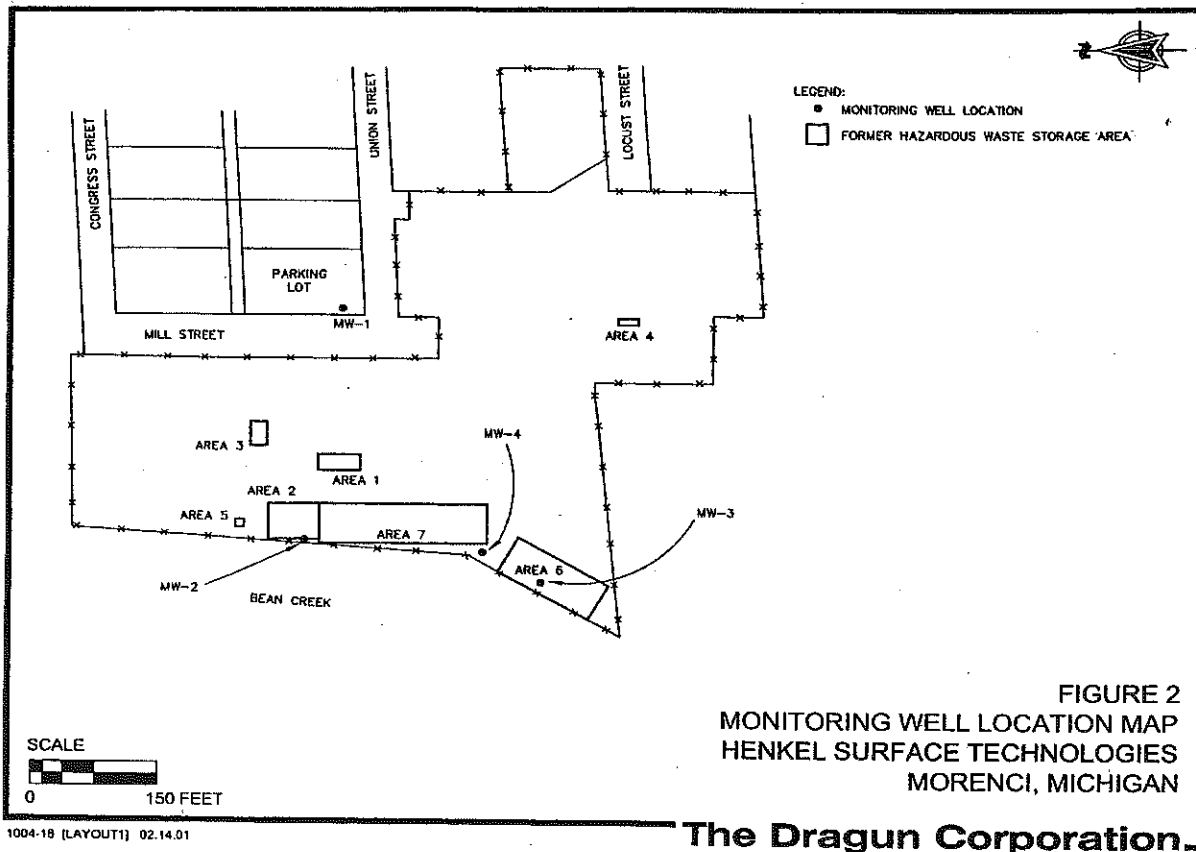
8. Respondent is the owner or operator of a facility that has operated under interim status subject to Section 3005(e) of RCRA.

9. Certain wastes and constituents found at the Facility are or were hazardous wastes and/or hazardous constituents

pursuant to Sections 1004(5) and 3001 of RCRA, and 40 C.F.R. Part 261.

10. Pursuant to Section 3010 of RCRA, 42 U.S.C. §6930, Oxy Metal Industries Corporation (Oxy Metal) notified EPA of hazardous waste activity at the Facility. In its August 19, 1980 notification for the Facility, Oxy Metal disclosed that the Facility is a generator of hazardous waste and is a treatment, storage, and disposal facility for hazardous waste. The years of active operation of this Facility were from 1928 until 1988.

11. In its Part A permit application dated November 18, 1980, Oxy Metal identified the Facility as a generator, and as a treatment, storage and disposal facility, handling the following hazardous waste codes - D001, D002, D003, D007, U123, U134, U154. On October 5, 1981, EPA received a notification that Oxy Metal was merged into Hooker Chemicals and Plastics Corp., and a revised permit application was made for the name change. On June 2, 1982, the EPA notified the Facility owners that they met the requirements for Interim Status as a hazardous waste management facility. On August 5, 1982, EPA was notified that Hooker had changed its name to Occidental Chemical. On October 1, 1983, EPA was notified that Parker Division of Occidental Chemical was sold to Parker Chemical Company. Among other previous owners and operators, the Site was owned and operated by Ford Motor Company. On March 1, 1989, EPA was notified that Parker Chemical had been sold to Henkel Corporation.



12. Respondent's Facility has been characterized as a process and storage facility for the manufacture of chemical specialty products for metal cleaning and treating, metal drawing compounds, lubricants, and rust inhibitors. The Facility is located on approximately 7 acres of fenced land with an address of 322 W. Main Street, Morenci, Michigan. The Facility is bounded on the western edge by Bean Creek.

13. The solid waste management units and areas of concern located at the Respondent's Facility include, but are not limited to, seven (7) waste storage areas labeled as Areas 1 through 7 on the map shown.

14. Geomorphic information available to EPA through an EPA Preliminary Assessment/Visual Site Inspection coupled with a hydrogeological examination of the Facility on November 8, 1982 by D'Appolonia, Inc., indicates that the Facility lies in a glacial spillway and outwash deposit which can be traced northward to Adrian, Michigan, and southward into Ohio. The flood plain of Bean Creek, bordering the Facility boundary to the west, has been cut into outwash deposits. The Lewanee County Soil Survey depicts the edge of the flood plain as a scarp running through the Facility site. Subsurface information indicates a glacial clay till proceeding to sand and gravel at a depth of approximately 90 feet, under which is a aquifer of major importance to the Morenci area. D'Appolonia, Inc. was a contractor employed by a predecessor owner of the Facility (Parker Surface Treatment), to conduct this hydrogeological investigation and install four monitoring wells at the request of the Michigan Department of Natural Resources (MDNR) [now known as the Michigan Department of Environmental Quality (MDEQ)]. Additional geologic and hydrogeologic information about the Site is available in the following reports:

(1) Interim Soil Report Closure Activities, Parker Amchem, Hazardous Waste Storage Pads, Morenci, Michigan Facility MID 058 723 867, dated 1/31/95, prepared by The Dragun Corporation;

(2) Groundwater Investigation Report, Closure Activities, Parker Amchem, Hazardous Waste Storage Pads, Morenci, Michigan Facility MID 058 723 867, dated 3/27/95, prepared by The Dragun Corporation;

(3) Soil Characterization Report, Henkel Surface Technologies Facility, Morenci, Michigan Facility MID 058 723 867, dated 10/22/97, prepared by The Dragun Corporation;

(4) Groundwater Sampling Report, Henkel Surface Technologies Facility, Morenci, Michigan Facility MID 058 723 867, dated 1/28/99, prepared by The Dragun Corporation;

(5) Limited Soil Removal Report, Henkel Surface Technologies Facility, Morenci, Michigan Facility MID 058 723 867, dated 2/14/00, prepared by The Dragun Corporation; and

(6) Hydrogeologic Study and Wellhead Protection Area Delineation, City of Morenci dated July 1997, prepared by Earth Tech.

(7) Analytical Report for Samples [regarding Bean Creek sediment samples] U.S. EPA Central Regional Laboratory, August 31, 2004.

15. Starting in 1982, the MDNR inspected the Facility for RCRA compliance on several occasions. MDNR inspection reports contain the following statements and findings by MDNR:

(1) May 14, 1982 - Linda Koivuniemi and Roy Scrameck (MDNR) found approximately 1000 drums of various hazardous waste products including ethylamine, other organics, returned products stored at the Facility. The report indicates that some drums were overturned and had fallen against the fence, which was on the edge of the creek;

(2) June 22, 1982 - Roy Schrameck (MDNR) found "stained material forming a pathway to the river, with the storage pad and ground being heavily stained with green-yellow and black wastes" in Area 6. There were drums in Area 6 which were disintegrated, and the company could not identify the contents. On the storage pad in Area 6, "was baghouse dust and yellow-green ooze on the pad surface;"

(3) June 22, 1982 - Referencing a 70% ethylamine drum, Roy Schrameck (MDNR) stated that "Disposal had been illegally accomplished by allowing the material to evaporate to the atmosphere;"

(4) June 22, 1982 - Samples ("scrapings of the organic layer on top of the concrete pad") taken in Area 2 and analyzed yielded PCBs (Aroclor 1242) in concentrations from 6500-2,500,000 micrograms per kilogram, and chromium in concentrations from 37-4700 milligrams per kilogram;

(5) June 22, 1982 - Linda Koivuniemi (MDNR) found that "Slowly, more and more information is dragged out of the company concerning quality, quantity and location of hazardous waste

stored. The company has been less than accurate in answering my questions about their hazardous waste practices;" and

(6) September 26, 1985 - Chris Grobbel (MDNR) found that: "1982 RCRA inspections of the facility uncovered numerous chemical storage violations, chemical residues on the ground surface including metals, and indications of overland runoff from a drum storage area to Bean Creek along the site's western boundary. ... Municipal Wells of Morenci are also a paramount concern."

16. In 1982, EPA issued an Administrative Complaint (U.S. EPA Docket #V-W-82-R-021) to Parker (a subsidiary of Occidental Chemical) and assessed a civil penalty of \$25,000 for RCRA violations involving improper storage, treatment and disposal of hazardous waste at the Facility. On July 8, 1983, a cashier's check in the amount of \$25,000 was paid to the U.S. Treasury as payment of this penalty.

17. On April 23, 1986, a Preliminary Assessment/Visual Site Inspection (PA/VSI) was conducted at the Facility by Ecology and Environment Inc, a contractor to the EPA. Leaking and damaged drums had been removed by the time the PA/VSI was conducted. The PA/VSI report included information derived from review of the MDNR inspection reports and sampling events, and the PA/VSI assigned a hazard ranking to the Facility taking into account materials of concern including but not limited to polychlorinated biphenyls (PCBs), toluene, benzene, ethylbenzene, hydrofluoric acid, ethylamine, chromium, cadmium, arsenic, nickel, lead and copper. No soils had been cleaned up or removed at that time. The PA/VSI report also mentioned information from MDNR/MDEQ inspection reports on releases of chemicals of concern to Bean Creek, including PCBs.

18. A report from Dragun Corporation (Henkel's contractor), dated February 6, 2001, confirms that during 1992, Henkel submitted a revised closure plan to the MDEQ for the seven identified hazardous waste storage areas. The 1992 plan called for cleanup of soils to Type B criteria (site specific background, with no leachability to groundwater) in these seven designated areas of the Facility. Facility-wide soils not included in these seven areas were not specifically mentioned. Soils and groundwater were tested and results suggested that soils in Area 6 required removal to meet the Type B criteria. Some soil removals took place between August and October of 1999.

19. On August 4, 1998, MDEQ and Dragun Corporation conducted sampling on three monitoring wells which were installed earlier by D'Appolonia, Inc.. Copper was found to exceed the Maximum Contaminant Level (MCL) for drinking water by at least a factor of 2 in all of the wells. In Monitoring Well (MW) #3 (representative of groundwater flow under Area 6), copper exceeded the MCL by a factor of nearly 50. Vinyl Chloride, a known carcinogen, exceeded the MCL by a factor of nearly three in MW #3, and cis 1,2 dichloroethene (DCE) and trichloroethene (TCE) were close to the MCL in MW# 3. In August of 2001, Dragun conducted a second round of groundwater sampling only for volatile organic compounds. The results for TCE and cis 1,2 DCE in MW #3 were not significantly different from previous results. Vinyl Chloride, on average, increased by 1 part per billion compared to previous results. This suggests that vinyl chloride

is increasing from the degrading of DCE. Total metals were not analyzed in the August 2001 sampling event. PCBs and semi-volatile compounds were not analyzed in either sampling event. However, groundwater from the Site has been determined not to be an applicable exposure pathway.

20. The supplemental risk assessment conducted by Techlaw for EPA indicates that subsurface values for lead range as high as 56,000 ppm in soil in the area outside of Waste Area 6 outside the fence line. This value is in excess of MDEQ Part 201 soil screening guidelines for lead, even for light commercial use.

21. Pictures of overturned drums of leaking waste taken during 1982 MDNR/MDEQ Site inspections indicate that it is reasonable to conclude that leaking hazardous waste materials have spilled outside the fence line, and drained down the steep embankment into Bean Creek. Known levels of metals and traces of polynuclear aromatic hydrocarbons (detected at levels below Part 201 residential criteria) still exist outside the fence line. It is reasonable to assume that weatherization and erosion caused spill contamination outside the fence line in the concentrations found today.

22. On October 15, 1999, EPA notified Henkel that the Facility is subject to Sections 3004(u) or 3008(h) of RCRA, and that it may be subject to corrective action following an evaluation by the EPA. On May 2, 2000, EPA notified Henkel of the results of a EPA site visit to the Facility on October 19, 1999, and the resulting evaluation, and offered the company a

voluntary corrective action agreement. Several meetings and discussions were held, and a number of edited drafts of a potential voluntary agreement were exchanged between Henkel and EPA, but no agreement was reached. Based on the discussions with Respondent and further information about conditions at the Facility, EPA has determined that this Order is necessary to provide for timely corrective action at the Facility.

23. In order to assess contamination and risk levels, sediment sampling was undertaken by EPA on July 20, 2004, at several sampling locations in the sediments of Bean Creek near the Facility and the samples were analyzed for metals, volatile and semi-volatile organic compounds and PCBs. The analysis of the samples showed that levels of each of these constituents in the sediment were below human health risk levels as defined by MDEQ Part 201 guidelines, and EPA has concluded that, based on the available information, the sediments do not appear to be an issue and no further work on the sediments is contemplated.

24. Hazardous wastes, hazardous constituents, priority pollutants and chemicals which have been identified at the Facility, including those identified in the documents and materials referenced in paragraphs 14 through 22 of this section, may pose a threat to human health or the environment in at least the following ways (not all of these substances are believed to be present at the Facility in amounts above applicable exposure pathways or Part 201 cleanup criterion; only lead has presently been documented above Part 201 cleanup criteria):

Vinyl Chloride - known human carcinogen, organ damage
(contact, ingestion, inhalation)

1,2 DCE, TCE - suspected human carcinogen, organ damage,
(ingestion, contact)

Cadmium - organ damage, emphysema (ingestion, contact)

Copper - organ damage (ingestion, contact)

Chromium - suspected human carcinogen, organ damage
(ingestion, contact)

Benzene - suspected human carcinogen, organ damage,
(ingestion, contact, inhalation)

Toluene - organ damage, nerve damage (ingestion, contact,
inhalation)

Ethyl Benzene - organ damage (ingestion, contact,
inhalation)

Xylene - organ damage (ingestion, contact, inhalation)

Ethylamine - organ and tissue damage (ingestion, inhalation,
contact)

Hydrofluoric Acid - corrosive, skin burns (contact,
ingestion, inhalation)

PCBs - suspected human carcinogen, organ damage (ingestion,
contact)

Lead - organ damage

25. The Facility is located in a developed area of Morenci. The Facility is bordered on the west side by Bean Creek. Groundwater flow from the Facility is toward the Creek. Contaminants migrate through the soils at the Facility and enter the saturated zone surrounding the Creek. Sampling to date has not shown chemicals above applicable Part 201 criteria.

26. There is or has been a release of hazardous wastes or hazardous constituents into the environment from the Facility.

27. The actions required by this Order are necessary to protect human health and the environment.

B. Conclusions of Law

Based on the Findings of Fact set out above, and after consideration of the Administrative Record, the Director, Waste Pesticides and Toxics Division, EPA, Region 5, has made the following conclusions of law and determinations, which Respondent does not contest:

1. Respondent is a "person" within the meaning of Section 1004(15) of RCRA, 42 U.S.C. §6903(15).

2. Respondent is the owner of a facility that has operated subject to Section 3005(e) of RCRA, 42 U.S.C. §6925(e).

3. Certain wastes and waste constituents thereof found at the Facility are hazardous wastes or hazardous constituents as defined by Section 1004(5) of RCRA, 42 U.S.C. §6903(5). These are also hazardous wastes or hazardous constituents within the meaning of Section 3001 of RCRA, 42 U.S.C. §6921, and 40 CFR Part 261.

4. There is or has been a release of hazardous wastes or hazardous constituents into the environment from the Facility.

5. The actions required by this Order are necessary to develop information about the extent of hazardous waste contamination of the Facility, and soils and groundwater around and near the Facility.

6. The actions required by this Order are necessary to protect human health and welfare and the environment.

V. WORK TO BE PERFORMED

Pursuant to Section 3008(h) of RCRA, 42 U.S.C. §6928(h), Respondent agrees to and is hereby ordered to perform the following acts in the manner and by the dates specified herein. Respondent represents that it has the technical and financial ability to carry out the necessary corrective action at the Facility. Respondent must perform the work undertaken pursuant to this Order in compliance with RCRA and other applicable federal and state laws and their implementing regulations, and consistent with all relevant EPA guidance documents appropriate to the Facility. Relevant guidance includes, but is not limited to, the "RCRA Facility Investigation (RFI) Guidance" (EPA 530/SW87-001).

A. As set forth below in this subsection, Respondent shall remove and properly dispose of soils with lead concentrations not protective of human health and the environment from the small waste area outside of the fence line bounding Waste Area 6. Contaminated soil was removed several years ago from Waste Area 6. The goal was to remove any soil that had a lead concentration higher than 400 ppm. The on-site soil removal (three sides of the excavations) was deemed successful, but the off-site soil removal (outside the fence line) was halted when Respondent discovered indications that another party might have contributed to the contamination. The purpose of the action ordered in this subsection is to identify, remove and properly dispose of hazardous constituents and contaminated soil in this area of or

near the Facility. Although this contamination may not have been caused by Respondent, Respondent has agreed to identify, remove and properly dispose of hazardous constituents and contaminated soil in this area. If Respondent determines that the removal may undermine the stability of the stream bank, Respondent shall consult with EPA to develop an acceptable plan to stabilize the stream bank and/or otherwise abate or isolate the contamination to be protective of human health and the environment.

Respondent shall prepare a work plan for this work, and submit the plan to EPA within 30 days after the effective date of this Order. After the new work plan is approved, Respondent shall re-initiate the excavation outside the fence line with a clean-up goal of 400 ppm of lead. This work is to be completed no later than 90 days after EPA's approval of a work plan for soil removal. Respondent will take the appropriate number of confirmation samples in accordance with MDEQ guidance, and will follow the procedures for sampling and analysis of the samples that are described in that guidance.

Respondent will remove all contaminated soil containing over 400 ppm of lead unless further excavation would undermine the stability of the stream bank. In that case, Respondent will take other steps to mitigate potential harm, which could include negotiating an institutional control to prevent human exposures to the contaminated soil. Respondent's consultant has estimated that about 100 cubic yards of contaminated soil might have to be removed and disposed of off-site in accordance with the

applicable MDEQ regulations, but the exact amount cannot be known until the work described above is undertaken.

Respondent shall submit to EPA a report of the removal and associated analysis no later than 45 days after completion of the removal.

B. No later than 60 days after completion of the work agreed upon in the Work Plan described in subsection V.A., above, Respondent shall submit to EPA a Description of Current Conditions (DOCC) report, describing prior use history of the Facility, current use of surrounding areas, nature and extent of known contamination, and a brief synopsis of RCRA Closure work performed at the Facility. The DOCC report must describe the nature and extent of any releases of hazardous waste and hazardous constituents at or from the Facility which do and do not pose an unacceptable risk to human health and the environment, and provide the basis for those conclusions, including an evaluation of the risks. The DOCC report should include at least the following sections: 1) Introduction; 2) Site Setting and Background (including discussion of site location; surrounding land use; geologic setting; hydrogeologic setting; wetlands; topography; and surface water drainage); 3) Site History; 4) Current Site Use and Site Description; 5) Discussion of Areas of Interest (including a summary of the work done in each and their current condition: the areas of interest should include designated Waste Areas, the area outside of the fence line bounding Waste Area 6 [see subsection V.A., above], the Bean

Creek stream bank, stream sediments; 6) Risks and Potential Risks; and 7) Proposed Steps To Be Taken to Mitigate Risks and Potential Risks; and References (EPA has provided Respondent with copies of similar reports for the Keystone Steel and GM Lordstown sites as a guide to what is expected in the DOCC report for this Site). A RCRA facility investigation (RFI) or corrective measures study and implementation plan (CMS and CMI) should not be necessary, unless further significant (per MDEQ Part 201 guidelines) contamination is found at the Facility prior to completion of work under this Order. If EPA determines that RFI, CMS or CMI are necessary, the Agency shall notify Respondent in writing and shall set reasonable deadlines for completion and submission of each, as necessary.

C. Respondent must demonstrate through submitting the DOCC Report, and by performing any other necessary activities, consistent with this Section, that:

1. All current human exposures to contamination at or from the Facility are under control. That is, significant or unacceptable exposures do not exist for all media known or reasonably suspected to be contaminated with hazardous wastes or hazardous constituents above risk-based levels, for which there are complete pathways between contamination and human receptors.
2. Migration of contaminated groundwater at or from the Facility is stabilized. That is, the migration of all groundwater known or reasonably suspected to be contaminated with hazardous wastes or hazardous constituents above acceptable levels is stabilized. In addition, any discharge of groundwater to surface water is either insignificant or currently acceptable according to an appropriate interim assessment. MDEQ Part 201 guidelines, along with standards referenced in Subsection J., below, can be used as applicable.

D. Not later than 120 days after completion of the work agreed to in the Work Plan described in subsection V.A., above, Respondent must propose to EPA final corrective measures necessary to protect human health and the environment from all current and future unacceptable risks due to releases of hazardous waste or hazardous constituents at or from the Facility (the "Final Corrective Measures Proposal"). The Final Corrective Measures Proposal must describe the corrective measures implemented at the Facility, and proposed to be implemented at the Facility. It must also include an explanation of why the final corrective measures are expected to be effective. The proposal must also include a schedule to construct and/or implement the final corrective measures, and to submit a Final Remedy Construction/Implementation Completion Report.

E. As part of developing its proposal, Respondent must propose appropriate risk screening criteria, cleanup objectives, and points of compliance under current and reasonably expected future land use scenarios and provide the basis and justification for these decisions. MDEQ Part 201 guidelines may be used where applicable.

F. EPA may request supplemental information from Respondent if EPA determines that the proposal and supporting information do not provide an adequate basis to select final corrective measures that will protect human health and the environment from the release of hazardous waste and hazardous constituents at or from the Facility. EPA will request in writing that Respondent

provide the supplemental information and will specify the reasons for EPA's determination that the supplemental information is necessary. Within fifteen (15) calendar days after the receipt of such request, Respondent shall have the opportunity to meet or confer with EPA to discuss the supplemental information EPA has requested. In the event that Respondent declines or fails to provide the supplemental information determined by EPA to be necessary, EPA reserves the right to order Respondent to provide such supplemental information; to obtain such supplemental information itself and to seek to recover from Respondent any costs of obtaining such supplemental information; and to disapprove relevant workplans or the reports. Once under such order, Respondent must timely provide any supplemental information that EPA requests in writing.

G. Any risk assessments Respondent conducts must estimate human health and ecological risk under reasonable maximum exposure for both current and reasonably expected future land use scenarios. In conducting the risk assessments, Respondent will follow the Risk Assessment Guidance for Superfund (RAGS) or other appropriate EPA guidance. Respondent will use appropriate, conservative screening values when screening to determine whether further investigation is required. Appropriate screening values include those derived from Federal Maximum Contaminant Levels, EPA Region 9 Preliminary Remediation Goals, EPA Region 5 Ecological Screening Levels, EPA Region 5 Risk Based Screening Levels, RAGS, or MDEQ Part 201 guidelines, where applicable.

H. Sampling and analysis conducted under the instant Order must be performed in accordance with the Region 5 RCRA Quality Assurance Project Plan Policy (April 1998) as appropriate for the Facility, and be sufficient to identify and characterize the nature and extent of all releases as required by this Order. EPA may audit laboratories Respondent selects. EPA may also request Respondent to purchase and have analyzed performance evaluation samples selected by EPA which are compounds of concern with regard to sampling at this site, and Respondent agrees to do so if requested. At the request of EPA, Respondent will provide (or allow EPA or its authorized representative to take) split or duplicate samples of all samples Respondent collects under this Order.

I. EPA will provide the public with an opportunity to review and comment on its proposed final corrective measures, including a detailed description and justification for the proposal (the "Statement of Basis") for at least forty five (45) days. Following the public comment period, EPA will select the final corrective measure(s), and will notify the public of the decision and rationale in a "Final Decision and Response to Comments" ("Final Decision").

J. Upon notice by EPA, Respondent must implement the final corrective measures selected in EPA's Final Decision according to the schedule in the Final Decision, and as set forth herein. Respondent must also implement and complete all final corrective

measures within a reasonable period of time to protect human health and the environment.

K. Consistent with the objectives of this Order, EPA may determine that certain tasks, including investigatory work or engineering evaluation, are necessary in addition to the tasks and deliverables set forth above when new findings indicate that such additional work is necessary and is not covered by the requirement of this Order. In such cases, EPA shall request in writing that Respondent perform the additional work and shall specify the basis and reasons for EPA's determination that the additional work is necessary. Within fifteen (15) days after receipt of such request, Respondent shall have the opportunity to meet with EPA to discuss the additional work EPA has requested. All additional work performed by Respondent under this paragraph shall be performed in a manner consistent with this Order, and EPA may specify that the work be performed under an approved workplan. In the event that Respondent declines or fails to perform the additional work determined by EPA to be necessary, EPA reserves the right to order Respondent to perform such additional work; to perform such additional work itself (or through other parties) and seek to recover from Respondent any costs of performing such additional work; and to disapprove relevant workplans or reports.

L. All work performed by Respondent pursuant to this Order shall be under the direction and supervision of a professional contractor with expertise in hazardous waste site cleanup.

Respondent has identified Jeffrey A. Bolin of the Dragun Corporation as the geological/engineering contractor to be used in carrying out the terms of this Order. Respondent shall provide EPA with not less than fifteen (15) days notice of any intended change in the engineer and/or geologist, and contractors or subcontractors and their personnel.

M. If EPA determines that activities in compliance or non-compliance with this Order have caused or may cause a release of hazardous waste, or a hazardous constituent, or a threat to human health or the environment, or that Respondent is not capable of undertaking any studies or corrective measures ordered, EPA may order Respondent to stop further implementation of this Order for such period of time as EPA determines may be needed to abate any such release or threat and/or to undertake any action which EPA determines is necessary to abate such release or threat.

N. The Project Managers can agree in writing to extend, for 90 days or less, any deadline in this Section. However, extensions of greater than 90 days require obtaining approval from the Director; Waste, Pesticides and Toxics Division, EPA Region 5.

VI. REPORTING AND OTHER REQUIREMENTS

A. Respondent agrees to timely provide EPA with the reports required in Section V., above.

B. Until the Final Corrective Measures are determined by EPA to be complete, Respondent must provide semi-annual progress reports on the Final Corrective Measures to EPA by June 30 and

December 31 of each year, beginning with 2005. The report must list work performed to date, data collected, problems encountered, project schedule, and percentage of the project completed.

C. The parties will communicate sufficiently and in good faith to assure successful completion of the requirements of this Order.

D. By no later than 60 days after work on the final measures is completed, Respondent must provide a Final Remedy Construction Completion Report documenting all work that it has performed pursuant to the schedule in EPA's Final Decision.

E. The Respondent shall submit to EPA the results of all sampling and/or tests or other data generated by, or on behalf of the Respondent, in accordance with the requirements of this Order.

F. Respondent shall notify EPA at least fourteen (14) days (or, if the work is time-critical, and 14 days notice is not possible, then as far in advance as possible), before engaging in any field activities, such as well drilling, installation of equipment, or sampling. At the request of EPA, Respondent shall provide (or allow EPA or its authorized representative to take) split samples of any samples collected by Respondent pursuant to this Order.

G. Respondent will not assert any privilege claim concerning any data gathered during any investigations or other actions required by this Order, except that Respondent may assert

a business confidentiality claim covering all or part of any information submitted to EPA pursuant to this Order. Any assertion of business confidentiality shall be adequately substantiated by Respondent when the assertion is made. Information determined to be confidential by EPA shall be disclosed only to the extent permitted by 40 CFR Part 2. If no such confidentiality claim accompanies information when it is submitted to EPA, it may be made available to the public by EPA without further notice to the Respondent. Physical or analytical data shall not be deemed confidential.

H. If ongoing monitoring or operation and maintenance is required after construction of the final corrective measures, Respondent must include an operations and maintenance plan in the Final Remedy Construction Completion Report. Respondent must revise and resubmit the report in response to EPA's written comments, if any, by the dates EPA specifies. Upon EPA's written approval, Respondent must implement the approved operation and maintenance plan according to the schedule and terms of the plan.

I. Within 30 days of retaining or employing any agent, consultant, or contractor ("agents") to carry out any of the terms of this Order, Respondent will enter into an agreement with the agents to give Respondent a copy of all data and final non-privileged documents produced under this Order.

J. Three (3) copies of all documents, including progress reports, and other correspondence submitted pursuant to this

Order shall be sent to the EPA Project Manager designated pursuant to this Order.

VII. QUALITY ASSURANCE

Throughout all sample collection and analysis activities, Respondent shall use EPA-approved quality assurance, quality control, and chain-of-custody procedures. In addition, Respondent shall:

A. Consult with EPA in planning for, and prior to, field sampling and laboratory analysis.

B. Inform the EPA Project Manager in advance which laboratories will be used by Respondent and ensure that the EPA personnel and EPA authorized representatives have reasonable access to the laboratories and personnel used for analyses.

C. Ensure that laboratories used by Respondent for analyses shall perform such analyses according to EPA methods included in "Test Methods for Evaluating Solid Waste" (SW-846, Final Update III, 1997 or most recent) or other methods deemed satisfactory to EPA. If methods other than EPA methods are to be used, Respondent shall submit all protocols to be used for analyses to EPA for approval within thirty (30) days prior to the commencement of analyses.

D. Ensure that laboratories used by Respondent for analyses participate in a quality assurance/quality control program equivalent to that which is followed by EPA. As part of such a program, and upon request by EPA, such laboratories shall perform

analyses of samples provided by EPA to demonstrate the quality of the analytical data.

VIII. ON-SITE AND OFF-SITE ACCESS

A. EPA and/or any EPA representative or contractor are authorized to enter and freely move about all property at the Facility during the effective dates of this Order for the purposes of, among other things: interviewing Facility personnel and contractors; inspecting records, operating logs, and contracts related to the Facility; reviewing the progress of the Respondent in carrying out the terms of this Order; conducting such tests, sampling, or monitoring as EPA or its Project Manager deem necessary; using a camera, sound recording, or other documentary type equipment; and verifying the reports and data submitted to EPA by the Respondent. Respondent shall permit such persons to inspect and copy all records, files, photographs, documents, and other writings, including all sampling and monitoring data, that pertain to work undertaken pursuant to this Order.

B. To the extent that work required by this Order, or by any approved Workplans prepared pursuant hereto, must be done on property not owned or controlled by Respondent, Respondent shall use its best efforts to obtain site access agreements from the present owner(s) of such property within thirty (30) days of approval of any Workplan for which site access is required. Best efforts as used in this paragraph shall include, at a minimum, a certified letter from Respondent to the present owners of the

property requesting access agreements to permit Respondent and EPA and its authorized representatives or contractors to access the property. Any such access agreement(s) shall be incorporated by reference into this Order. In the event that agreements for access are not obtained within thirty (30) days of the effective date of this Order, Respondent shall notify EPA in writing within thirty (30) days thereafter regarding both the efforts undertaken to obtain access and its failure to obtain the agreements. Any such access agreement must provide for access by EPA and its representatives. Respondent must submit a copy of any access agreement to EPA's Project Manager. EPA may, at its discretion, assist Respondent in obtaining access. In the event EPA obtains access, Respondent shall undertake EPA approved work on such property.

C. Nothing in this Section limits or otherwise affects EPA's right of access and entry pursuant to applicable law including RCRA and the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. §§ 9601-9675.

IX. RECORD PRESERVATION

A. Respondent shall preserve during the pendency of this Order and for a minimum of six (6) years after its termination, all data, records, and documents in its possession or in the possession of its divisions, officers, employees, agents, contractors, successors, and assigns which relate in any way to this Order or to hazardous waste management and/or disposal at the Facility. After six (6) years, Respondent shall make such

records available to EPA for inspection or shall provide copies of any such records to EPA. Respondent shall notify EPA, in writing, at least thirty (30) days prior to the destruction of any such records, and shall provide EPA with the opportunity to take possession of any such records. Respondent's notice shall refer to the effective date, caption, and docket number of this Order and will be addressed to:

Project Manager (Henkel Surface Technologies site)
Waste, Pesticides and Toxics Division
U.S. EPA, Region 5
77 W. Jackson Blvd.
Chicago, IL 60604-3590

Respondent will also promptly give EPA's Project Manager a copy of the notice.

B. Respondent agrees to cooperate with EPA to establish a publicly accessible repository for information regarding site conditions and activities.

X. Project Manager

A. EPA and Respondent each shall designate a Project Manager. Each Project Manager shall be responsible for overseeing the implementation of this Order. The EPA Project Manager will be EPA's designated representative at the Facility. All communications between the Respondent and the EPA, and all documents, reports, approvals, and other correspondence concerning the activities performed pursuant to the terms and conditions of this Order shall be directed through, or copied to, the Project Managers.

B. EPA hereby designates its Project Manager as:

Brian Freeman
Senior Chemist
Enforcement and Compliance Assurance Branch
Waste, Pesticides and Toxics Division
U.S. EPA, Region 5
77 W. Jackson Blvd.
Chicago, IL 60604-3590

C. Respondent hereby designates its Project Manager as:

Jeffrey A. Bolin, CHMM
The Dracun Corporation
30445 Northwestern Highway
Suite 260
Farmington Hills, MI 48334

D. The parties shall provide at least fourteen (14) days written notice to change Project Managers.

E. The absence of the EPA Project Manager from the Facility shall not be cause for the stoppage of work.

XI. STIPULATED PENALTIES

A. Respondent agrees to and must pay the following stipulated penalties to the United States for violations of this Order:

1. For failure to timely complete the activities ordered in subsection V.A., above: \$250 per day.
2. For failure to submit the DOCC Report required as scheduled in subsection V.B., above: \$150 per day.
3. For failure to submit semi-annual progress reports by the dates scheduled in subsection VI.B., above: \$100 per day.
4. For failure to submit the Final Corrective Measures Proposal as required in subsection V.D., above, within 120 days after the completion of performance of the work plan described in subsection V.A.: \$150 per day.
5. For failure to implement according to the approved schedule, the selected final corrective measures as described in subsections V.D. and V.J., above: \$250 per day.

6. For failure to submit the Final Remedy Construction Completion Report as scheduled in subsection VI.D., above: \$150 per day.

B. Whether or not Respondent has received notice of a violation, stipulated penalties will begin to accrue on the day a violation occurs, and will continue to accrue until Respondent complies. For items 4. and 5., in subsection X.A., above, stipulated penalties will not accrue during the period, if any, that EPA has not notified Respondent in writing of the selected corrective measures. Separate stipulated penalties for separate violations of this Order will accrue simultaneously.

C. Respondent must pay any stipulated penalties owed to the United States under this Section within 30 days of receiving EPA's written demand to pay the penalties, unless Respondent invokes the dispute resolution procedures under Section XII, Dispute Resolution. A written demand for stipulated penalties by EPA will describe the violation and will indicate the amount of penalties due.

D. Interest will begin to accrue on any unpaid stipulated penalty balance beginning 31 days after Respondent receives EPA's demand letter. Interest will accrue at the current value of funds rate established by the Secretary of the Treasury. Under 31 U.S.C. § 3717, Respondent must pay an additional penalty of six percent per year on any unpaid stipulated penalty balance more than 90 days overdue.

E. Respondent must pay all penalties by certified or cashier's check payable to the United States of America, or by wire transfer, and will send the check to:

U.S. Department of the Treasury
Attention: U.S. EPA Region 5
Office of the Comptroller
P.O. Box 70753
Chicago, Illinois 60673.

A transmittal letter stating the name of the facility, Respondent's name and address, and the EPA docket number of this action must accompany the payment. Respondent will simultaneously send a copy of the check and transmittal letters to the EPA Project Manager.

F. Respondent may dispute EPA's assessment of stipulated penalties by invoking the dispute resolution procedures under Section XII, Dispute Resolution. The stipulated penalties in dispute will continue to accrue, but need not be paid, during the dispute resolution period. Respondent must pay stipulated penalties and interest, if any, according to the dispute resolution decision or agreement. Respondent must submit such payment to EPA within 30 days after receiving the resolution according to the payment instructions of this Section.

G. Neither invoking dispute resolution nor paying penalties will affect Respondent's obligation to comply with the terms of this Order not directly in dispute.

H. The stipulated penalties set forth in this Section do not preclude EPA from pursuing any other remedies or sanctions which may be available to EPA for Respondent's violation of any

terms of this Order. However, EPA will not seek both a stipulated penalty under this Section and a statutory penalty for the same violation.

XII. DISPUTE RESOLUTION

A. The parties will use their best efforts to informally and in good faith resolve all disputes or differences of opinion.

B. If either party disagrees, in whole or in part, with any decision made or action taken under this Order, that party will notify the other party's Project Manager of the dispute. The Project Managers will attempt to resolve the dispute informally.

C. If the Project Managers cannot resolve the dispute informally, either party may pursue the matter formally by placing its objections in writing. A written objection must state the specific points in dispute, the basis for that party's position, and any matters which it considers necessary for determination.

D. EPA and Respondent will in good faith attempt to resolve the dispute through formal negotiations within 21 days, or a longer period if agreed in writing by the parties. During formal negotiations, either party may request a conference with appropriate senior management of the other party to discuss the dispute.

E. If the parties are unable to reach an agreement through formal negotiations, within 14 business days after any formal negotiations end, Respondent and EPA's Project Manager may submit additional written information to the Director of the Waste,

Pesticides and Toxics Division, U.S. EPA Region 5. EPA will maintain a record of the dispute, which will contain all statements of position and any other documentation submitted pursuant to this Section. EPA will allow timely submission of relevant supplemental statements of position by the parties to the dispute. Based on the record, EPA will respond to Respondent's arguments and evidence and provide a detailed written decision on the dispute signed by the Director of the Waste, Pesticides and Toxics Division, U.S. EPA Region 5 ("EPA Dispute Decision").

F. If, at the conclusion of the Dispute Resolution process, Respondent notifies EPA that it refuses to implement EPA's selected final corrective measures, EPA will endeavor to pursue the action(s) it deems necessary, if any, within a reasonable period of time.

XIII. FORCE MAJEURE AND EXCUSABLE DELAY

A. Force majeure, for purposes of this Order, is any event arising from causes not foreseen and beyond Respondent's control that delays or prevents the timely performance of any obligation under this Order despite Respondent's best efforts.

B. If any event occurs or has occurred that may delay the performance of any obligation under this Order, whether or not caused by a force majeure event, Respondent must notify EPA within two business days after learning that the event may cause a delay. If Respondent wishes to claim a force majeure event, within 15 business days thereafter Respondent must provide to EPA

in writing all relevant information relating to the claim, including a proposed revised schedule.

C. If EPA determines that a delay or anticipated delay is attributable to a force majeure event, EPA will extend in writing the time to perform the obligation affected by the force majeure event for such time as EPA determines is necessary to complete the obligation or obligations.

XIV. WAIVER OF OPPORTUNITY TO REQUEST A HEARING

A. Respondent hereby waives its rights to contest this Order, and Respondent hereby waives its right to a judicial or administrative hearing on the adequacy of the Administrative Record as applied to this Order, and waives any and all rights to appeal this Order, including under Section 3008(b) of RCRA, 42 U.S.C. § 6928(b). This Order shall become final upon execution by the parties.

XV. OTHER CLAIMS

A. Respondent waives any claims or demands for compensation or payment under Section 106(b), 111, and 112 of CERCLA against the United States or the Hazardous Substance Superfund established by 26 U.S.C. § 9507 for, or arising out of, any activity performed or expense incurred under this Order. Additionally, this Order is not a decision on preauthorization of funds under Section 111(a)(2) of CERCLA.

B. Nothing in this Order shall constitute or be construed as a release from any claim, cause of action, or demand in law or equity against any person, firm, partnership, or corporation for

any liability it may have arising out of, or relating in any way to, the generation, storage, treatment, handling, transportation, release, or disposal of any hazardous constituents, hazardous substances, hazardous wastes, pollutants, or contaminants found at, taken to, or taken from the Facility.

XVI. INDEMNIFICATION OF THE UNITED STATES GOVERNMENT

A. Respondent indemnifies, saves and holds harmless the United States, its agencies, departments, agents, and employees, from all claims or causes of action arising from or on account of acts or omissions of Respondent or its officers, employees, agents, independent contractors, receivers, trustees, and assigns in carrying out activities required by this Order. This indemnification will not affect or limit the rights or obligations of Respondent or the United States under their various contracts. This indemnification will not create any obligation on the part of Respondent to indemnify the United States from claims arising from the acts or omissions of the United States. The United States Government shall not be represented or construed to be a party to any contract entered into by Respondent in carrying out activities pursuant to this Order.

XVII. RESERVATION OF RIGHTS

A. EPA expressly reserves all rights that it may have, including the right both to disapprove of work performed by Respondent pursuant to this Order and to request that Respondent perform tasks in addition to those stated in this Order.

Respondent reserves all rights remedies and defenses that it may have, including, but not limited to, all rights it may have to contest any other orders by EPA, to challenge EPA's performance of work, to challenge EPA's stop work orders, and to seek judicial review of EPA actions taken under this Order, including proceedings by the United States to enforce the Order or to collect penalties for alleged violations of the Order.

B. EPA hereby reserves all of its statutory and regulatory powers, authorities, rights, remedies, both legal and equitable, which may pertain to Respondent's failure to comply with any of the requirements of this Order, including without limitation the assessment of penalties under Section 3008(h)(2) of RCRA, 42 U.S.C. §6928(h)(2), and/or to issue an administrative order to perform corrective actions or other response measures.

C. In any proceeding, Respondent shall not assert or maintain any defense or claim based upon the principles of waiver, res judicata, collateral estoppel, issue preclusion, claim-splitting, or other defenses based upon a contention that the claims raised by the United States in the later proceeding were or should have been raised in this Order or any proceeding under this Order. This Order shall not be construed as a covenant not to sue, release, waiver, or limitation of any rights, remedies, power and/or authorities, civil or criminal, which EPA has under RCRA, CERCLA, or any other statutory, regulatory, or common law enforcement authority of the United States.

D. Compliance by Respondent with the terms of this Order shall not relieve Respondent of its obligations to comply with RCRA or any other applicable local, State, or Federal laws and regulations.

E. This Order shall not limit or otherwise preclude the Agency from taking additional enforcement action pursuant to Section 3008(h) of RCRA or other available legal authorities should the Agency determine that such actions are warranted and necessary to protect human health and the environment.

F. This Order is not intended to be nor shall it be construed to be a permit. This Order does not relieve Respondent of any obligation to obtain and comply with any local, State, or Federal permits.

G. EPA reserves the right to perform any portion of the work ordered herein or any additional site characterization, feasibility study, and response/corrective actions as it deems necessary to protect human health and the environment. EPA may exercise its authority under CERCLA to undertake removal actions or remedial actions at any time. In any event, EPA reserves its right to seek reimbursement from Respondent for such additional costs incurred by the United States. Notwithstanding compliance with the terms of this Order, Respondent is not released from liability, if any, for the costs of any response actions taken by EPA.

H. If EPA determines that Respondent's actions related to this Order have caused or may cause a release of hazardous waste

or hazardous constituent(s), or a threat to human health or the environment, or that Respondent cannot perform any of the work ordered, EPA may order Respondent to stop implementing this Order for the time EPA determines may be needed to abate the release or threat and to take any action that EPA determines is necessary to abate the release or threat.

I. Respondent has entered into this Order in good faith without trial or adjudication of any issue of fact or law. Respondent reserves its right to seek judicial review of EPA actions taken under this Order, including a proceeding brought by the United States to enforce the Order or to collect penalties for violations of the Order.

XVIII. OTHER APPLICABLE LAWS

A. All action required to be taken by the Respondent pursuant to this Order shall be undertaken in accordance with the requirements of all applicable local, State, and Federal laws and regulations. Respondent shall obtain or cause its representatives to obtain all permits and approvals necessary under such laws and regulations.

XIX. SUBSEQUENT MODIFICATION

A. This Order may be modified by mutual agreement of EPA and Respondent, except as provided in Section V. - Work to be Performed. Any agreed modifications will be in writing, will be signed by both parties, will be effective on the date of signature by EPA, and will be incorporated into this Order.

B. This Order may be amended by EPA to ensure protection of human health and the environment. Such amendments shall be in writing, shall have as their effective date the date on which they are signed by EPA, and shall be incorporated into this Order.

C. Any reports, plans, specifications, schedules, and attachments required by this Order are, upon written approval by EPA, incorporated into this Order. Any noncompliance with such EPA-approved reports, plans, specifications, schedules, and attachments shall be considered a violation of this Order and shall subject Respondent to the statutory penalty provisions referenced in Section XVII. of this Order.

D. No informal advice, guidance, suggestions, or comments by EPA regarding reports, plans, specifications, schedules, and any other writing submitted by Respondent will be construed as relieving Respondent of its obligation to obtain written approval, if and when required by this Order.

XX. SEVERABILITY

A. If any provision or authority of this Order or the application of this Order to any party or circumstances is held by any judicial or administrative authority to be invalid, the application of such provisions to other parties or circumstances and the remainder of the Order shall remain in force and shall not be affected thereby.

XXI. TERMINATION AND SATISFACTION

A. Respondent may request that EPA issue a determination that Respondent has met the requirements of the Order for all or a portion of the Facility. Respondent may also request that EPA issue a "no further interest" or "no further action" determination for all or a portion of the Facility.

B. The provisions of the Order will be satisfied upon Respondent's and EPA's execution of an "Acknowledgment of Termination and Agreement on Record Preservation and Reservation of Rights," ("Acknowledgment") consistent with EPA's Model Scope of Work.

C. Respondent's execution of the Acknowledgment will affirm its continuing obligation to preserve all records as required by Section IX., to maintain any necessary institutional controls or other long terms measures, and to recognize EPA's reservation of rights as set forth in Section XVII., and elsewhere in this Order.

D. The provisions of this Order shall be deemed satisfied upon Respondent's receipt of written notice from EPA that Respondent has demonstrated, to the satisfaction of EPA, that the terms of this Order, including any additional tasks determined by EPA to be required pursuant to this Order, or any continuing obligation or requirements [e.g., Record Retention, Reservation of Rights] have been satisfactorily completed.

XXII. EFFECTIVE DATE

This Order shall become final upon execution by the parties as indicated below.

IT IS SO ORDERED:

BY: _____
Margaret Guerriero, Director
Waste Pesticides and Toxics Division
U.S. Environmental Protection Agency
Region 5

Date

AGREED TO BY:

BY: _____
Gerald Kohlsmith, President
Henkel Corporation, N.A.
Henkel Surface Technologies
Division of Henkel Corporation
32100 Stephenson Highway
Madison Heights, MI 48071

Date

12/13

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5

IN THE MATTER OF:

Henkel Surface Technologies
A Division of Henkel Corp.
32100 Stephenson Highway
Madison Heights, MI 48071

I.D.# MID058723867

RESPONDENT.

)
)
)
) ADMINISTRATIVE ORDER
)
)
) U.S. EPA DOCKET NO.
)
)
) Proceeding under
) Section 3008(h)
) of the Resource Conservation and
) Recovery Act of 1976, as amended,
) 42 U.S.C. §6928(h).

I. JURISDICTION

This ADMINISTRATIVE ORDER is issued pursuant to the authority vested in the Administrator of the United States Environmental Protection Agency (U.S. EPA) by Section 3008(h) of the Solid Waste Disposal Act, commonly referred to as the Resource Conservation and Recovery Act of 1976 (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984, 42 U.S.C. §6928(h). The Administrator has delegated the authority to issue orders under Section 3008(h) of RCRA to the Chief, Enforcement and Compliance Assurance Branch; Waste, Pesticides and Toxics Division; U.S. EPA Region 5.

This Administrative Order is issued to Henkel Surface Technologies Division of Henkel Corporation (Respondent), the owner of a facility and site at 322 Main Street, Morenci, Michigan (the Facility). This Order is based on information U.S.

EPA has about the Facility, and information U.S. EPA requires about the Facility, and is supported by the administrative record compiled by U.S. EPA and incorporated herein by reference. The record is available for review by Respondent and the public at U.S. EPA's office at 77 W. Jackson Street, Chicago, Illinois 60604.

II. PARTIES BOUND

A. This Order shall apply to and be binding upon Respondent and its officers, directors, employees, agents, and successors and assigns, and upon all persons, independent contractors, contractors, and consultants acting under or for Respondent.

B. No change in ownership or corporate or partnership status relating to the Facility will alter Respondent's responsibilities under this Order.

C. Respondent shall provide a copy of this Order to all contractors, subcontractors, laboratories, and consultants retained to conduct or monitor any portion of the work performed pursuant to this Order. Respondent shall do so within one (1) week of the effective date of this Order or date of such retention, and shall condition all such contracts on compliance with the terms of this Order.

D. Respondent shall give notice of this Order to any successor in interest prior to transfer of ownership or operation of the Facility, or any portion of it, and shall notify U.S. EPA within thirty (30) days prior to such transfer.

III. STATEMENT OF PURPOSE

The issuance of this Order requires the Respondent, to: (1) perform Interim Measures (IM) at the Facility to mitigate potential threats to human health or the environment; (2) perform a RCRA Facility Investigation (RFI) to determine fully the nature and extent of any release of hazardous wastes and hazardous constituents at or from the Facility; (3) perform a Corrective Measures Study (CMS) to identify and evaluate alternatives for corrective action necessary to prevent or mitigate any migration or releases of hazardous wastes or hazardous constituents at or from the Facility; and (4) implement the Corrective Measure or Measures selected by U.S. EPA at the Facility.

IV. FINDINGS OF FACT

A. Respondent is a company doing business in the State of Michigan and is a person as defined in Section 1004(15) of RCRA, 42 U.S.C. §6903(15) and 40 CFR 260.10.

B. In December of 1988, Parker Chemical Company of Morenci, Michigan (formerly known as Parker-Amchem was acquired by Henkel Corporation, thereby becoming Henkel Surface Technologies, Inc.

The Facility had been previously owned and operated over the years by Oxy Metal Corporation, a division of Occidental Chemical, Hooker Chemical, and by Ford Motor Company.

C. Respondent is a generator of hazardous waste and an owner of a hazardous waste management facility at the Facility located at 322 W. Main Street, Morenci, Michigan 49256. Respondent engaged in the treatment, storage and disposal of hazardous waste at the Facility subject to Interim Status requirements at 40 CFR Part 265. Respondent filed a Part A application to store hazardous waste in drums and obtained interim status for that process.

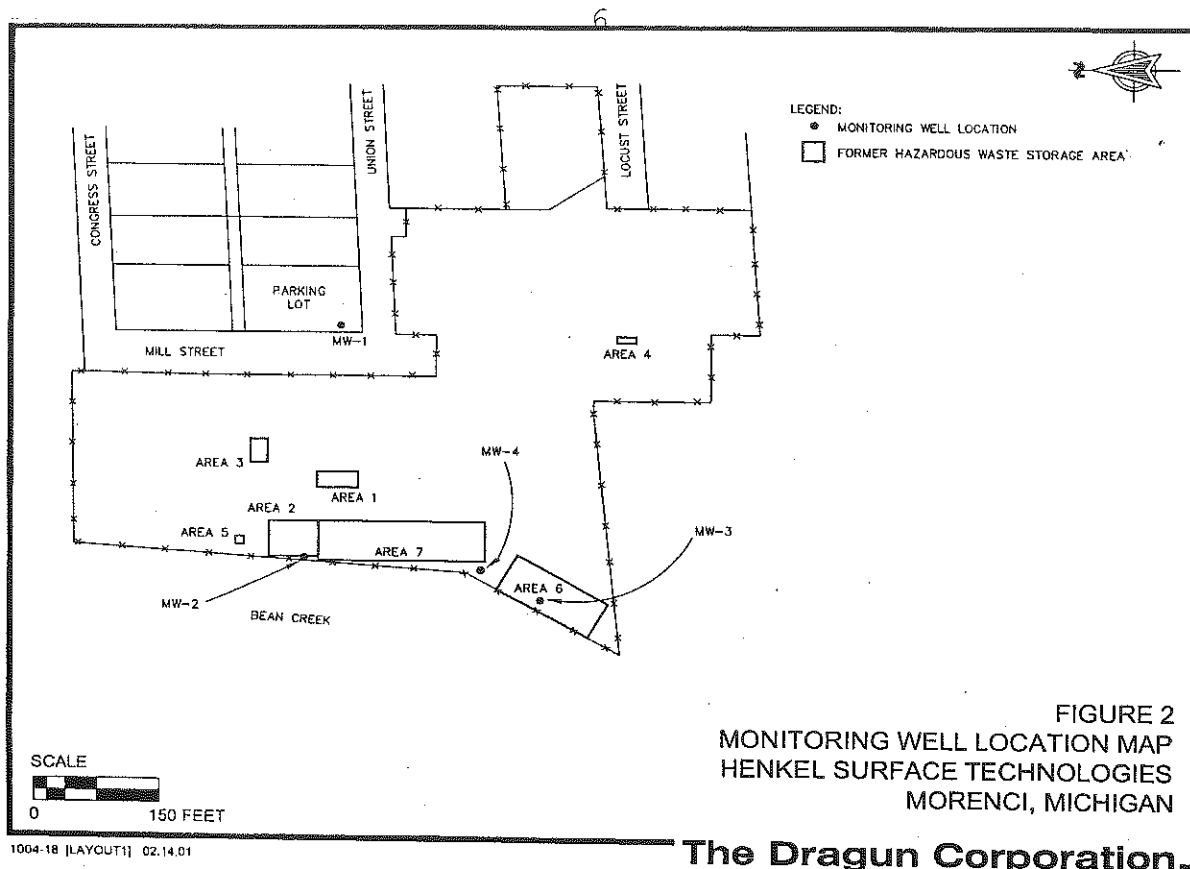
D. The Facility was operated as a hazardous waste management facility on and after November 19, 1980, the applicable date which renders facilities subject to interim status requirements or the requirement to have a permit under Sections 3004 and 3005 of RCRA, 42 U.S.C. §§6924 and 6925.

E. Pursuant to Section 3010 of RCRA, 42 U.S.C. §6930, the Respondent's corporate predecessor Oxy Metal Industries Corporation (Oxy Metal) notified U.S. EPA of hazardous waste activity at the Facility. In its August 19, 1980 notification for the Facility, Oxy Metal disclosed that the Facility is a generator hazardous waste and is a treatment, storage, and disposal facility for hazardous waste. The years of active operation of this facility were from 1928 until 1988.

F. In its Part A permit application dated November 18, 1980, Oxy Metal identified the Facility as a generator, and as a treatment, storage and disposal facility handling the following hazardous waste codes - D001, D002, D003, D007, U123, U134, U154. On October 5, 1981, U.S. EPA received a notification that Oxy Metal was merged into Hooker Chemicals and Plastics Corp., and a revised permit application was made for the name change. On June 2, 1982, the U.S. EPA notified the Facility owners that they met the requirements for Interim Status as a hazardous waste management facility. On August 5, 1982, U.S. EPA was notified that Hooker had changed its name to Occidental Chemical. On October 1, 1983, U.S. EPA was notified that Parker Division of Occidental Chemical was sold to Parker Chemical Company. On March 1, 1989 U.S. EPA was notified that in December of 1988, Parker Chemical was sold to Henkel Corporation, doing business as Henkel and Parker+Anchem.

G. Respondent's Facility has been characterized as a process and storage facility for the manufacture of chemical specialty products for metal cleaning and treating, metal drawing compounds, lubricants, and rust inhibitors. The Facility is located on approximately 10 acres of land with an address of 322 W. Main Street, Morenci, Michigan. The Facility is bounded on the western edge by Bean Creek.

H. The solid waste management units and areas of concern located at the Respondent's Facility include but are not limited to seven



The Dragun Corporation

(7) waste storage areas labeled as Areas 1 through 7 on the map shown, as well as Bean Creek, which borders the Facility on its western edge.

I. Geomorphic information available to U.S. EPA through an EPA Preliminary Assessment/Visual Site Inspection coupled with a hydrogeological examination of the Facility on November 8, 1982 by D'Appolonia, Inc., indicates that the Facility lies in a glacial spillway and outwash deposit which can be traced northward to Adrian and southward into Ohio. The flood plain of Bean Creek, bordering the Facility boundary to the west, has been cut into outwash deposits. The Lewanee County Soil Survey

depicts the edge of the flood plain as a scarp running through the Facility site. Subsurface information indicates a glacial clay till proceeding to sand and gravel at a depth of approximately 90 feet, under which is a aquifer of major importance to the Morenci area. D'Appolonia was a contractor employed by a predecessor owner of the Facility (Parker Surface Treatment), to conduct this hydrogeological investigation and install four monitoring wells at the request of the Michigan Department of Natural Resources (now known as the Michigan Department of Environmental Quality, (MDEQ)).

K. Starting in 1982, the MDNR inspected the Facility for RCRA compliance on several occasions. MDNR inspection reports contain the following statements and findings by MDNR:

a. May 14, 1982 - Linda Koivuniemi and Roy Scrameck (MDNR) found Approximately 1000 drums of various hazardous waste products including ethylamine, other organics, returned products stored at the Facility. The report indicates that some drums were overturned, and falling against the fence which was on the edge of the creek.

b. June 22, 1982 - Roy Schrameck (MDNR) found "stained material forming a pathway to the river, with the storage pad and ground being heavily stained with green-yellow and black wastes in Area 6. There were drums in Area 6 which were disintegrated, and the company could not identify the contents. On the storage

pad in Area 6, "was baghouse dust and yellow-green ooze on the pad surface".

c. June 22, 1982 - Referencing a 70% ethylamine drum, Roy Schrameck (MDNR) stated that "Disposal had been illegally accomplished by allowing the material to evaporate to the atmosphere."

d. June 22, 1982 - Soil samples taken and analyzed in Area 2 yielded PCBs (Aroclor 1242) in concentrations from 6500-2,500,000 micrograms per kilogram, and chromium in concentrations from 37-4700 milligrams per kilogram.

e. June 22, 1982 - Linda Koivuniemi (MDNR) found that "Slowly, more and more information is dragged out of the company concerning quality, quantity and location of hazardous waste stored. The company has been less than accurate in answering my questions about their hazardous waste practices".

f. September 26, 1985 - Chris Grobbel (MDNR) found that: "1982 RCRA inspections of the facility uncovered numerous chemical storage violations, chemical residues on the ground surface including metals, and indications of overland runoff from a drum storage area to Bean Creek along the site's western boundary....Municipal Wells of Morenci are also a paramount concern."

L. In 1982, U.S. EPA's issued an administrative Complaint (U.S. EPA Docket #V-W-82-R-021) to Parker (a subsidiary of Occidental Chemical, predecessors of Henkel) and assessed civil penalty of \$25,000 for RCRA violations involving improper

storage, treatment and disposal of hazardous waste at the Facility. On July 8, 1983, a cashier's check in the amount of \$25,000 was paid to the U.S. Treasury as payment of this penalty.

M. On April 23, 1986, a Preliminary Assessment/Visual Site Inspection (PA/VSI) was conducted at the Facility by Ecology and Environment Inc, a contractor to the U.S. EPA. Leaking and damaged drums had been removed by this time. Included in the PA/VSI report was information derived from review of the MDNR inspection reports and sampling events, and the PA/VSI assigned a hazard ranking to the Facility taking into account materials of concern including but not limited to polychlorinated biphenyls (PCBs), toluene, benzene, ethylbenzene, hydrofluoric acid, ethylamine, chromium, cadmium, arsenic, nickel, lead and copper. No soils had been cleaned up or removed at that time. The PA/VSI report also mentioned information from MDEQ inspection reports on releases of chemicals of concern to Bean Creek, including PCBs.

N. A report from Dragun Corporation (Henkel's contractor) dated February 6, 2001, confirms that during 1992, Henkel submitted a revised closure plan to the MDEQ for the seven hazardous waste storage areas. The 1992 plan called for cleanup of soils to Type B criteria (site specific background, with no leachability to groundwater) in the seven designated areas of the Facility. Facility-wide soils not included in the seven areas were not specifically mentioned. Soils and groundwater were tested and

results suggested that soils in Area 6 required removal to meet the Type B criteria. Some soil removals took place between August and October of 1999.

O. On August 4, 1998, MDEQ and Dragun Corporation conducted sampling on three (3) monitoring wells which were installed earlier by D'Appolonia (Section I. above). Copper was found to exceed the Maximum Contaminant Level (MCL) for drinking water by at least a factor of 2 in all of the wells. In Monitoring Well (MW) #3 (representative of groundwater flow under Area 6, copper exceeded the MCL by a factor of nearly 50. Vinyl Chloride, a known carcinogen, exceeded the MCL by a factor of nearly three in MW #3, and cis 1,2 dichloroethene (DCE) and trichloroethene (TCE) were close to the MCL in MW# 3. In August of 2001, Dragun conducted a second round of groundwater sampling only for volatile organic compounds. The results for TCE and cis 1,2 DCE in MW #3 were not significantly different from previous results. Vinyl Chloride on average, increased by 1 part per billion compared to previous results. This suggests that vinyl chloride is increasing from degrading DCE. Total metals were not analyzed in the August 2001 sampling event. PCBs and semi-volatile compounds were not analyzed in either sampling event.

P. On October 15, 1999, U.S. EPA notified Henkel that the Facility is subject to Sections 3004(u) or 3008(h) of RCRA, and that it may be subject to corrective action following an

evaluation by the U.S. EPA. On May 2, 2000, U.S. EPA notified Henkel of the results of a U.S. EPA site visit to the Facility on October 19, 1999, and the resulting evaluation, and offered the company a voluntary corrective action agreement. Several meetings and discussions were held, and a number of edited drafts of a potential voluntary agreement were exchanged between Henkel and EPA, but no agreement was reached. Based on the discussions with Respondent and further information about conditions at the Facility, U.S. EPA has determined that this Order is necessary to provide for timely corrective action at the Facility.

Q. Hazardous wastes, hazardous constituents, priority pollutants and chemicals at the Facility including those identified in paragraphs K, M, and O of this section pose a threat to human health or the environment in at least the following ways:

Vinyl Chloride - Known human carcinogen, organ damage (contact, ingestion, inhalation)

1,2 DCE, TCE - Suspected human carcinogen, organ damage, (ingestion, contact)

Cadmium - organ damage, emphysema (ingestion, contact)

Copper - organ damage (ingestion, contact)

Chromium - suspected human carcinogen, organ damage (ingestion, contact)

Benzene, - suspected human carcinogen, organ damage, (ingestion, contact, inhalation)

Toluene - organ damage, nerve damage (ingestion, contact, inhalation)

Ethyl Benzene - organ damage, (ingestion, contact, inhalation)

Xylene - organ damage, (ingestion, contact, inhalation)

Ethylamine - organ and tissue damage (ingestion, inhalation, contact)

Hydrofluoric Acid - corrosive, skin burns (contact, ingestion, inhalation)

PCBs - Suspected human carcinogen, organ damage (ingestion, contact)

R. The Facility is located in a developed area of Morenci. The Facility is bordered on the west side by Bean Creek. Groundwater flow from the Facility is toward the creek. Contaminants migrate through the soils at the Facility, and upon entering the saturated zone surrounding the Creek, the contaminants diffuse and disperse into the wet areas.

S. The Chief, RCRA Enforcement and Compliance Assurance Branch, Waste Pesticides and Toxics Division, U.S. EPA, Region 5, has determined that the actions ordered below at and around the Facility are necessary to protect human health and the environment.

V. U.S. EPA'S CONCLUSIONS OF LAW AND DETERMINATIONS

Based on the Findings of Fact set out above, and after consideration of the administrative record, the Chief, RCRA Enforcement and Compliance Assurance Branch, Waste Pesticides and Toxics Division, U.S. EPA, Region 5, has made the following conclusions of law and determinations:

- A. Respondent is a "person" within the meaning of Section 1004(15) of RCRA, 42 U.S.C. §6903(15).
- B. Respondent is the owner of a facility that has operated subject to Section 3005(e) of RCRA, 42 U.S.C. §6925(e).
- C. Certain wastes and waste constituents thereof found at the Facility are hazardous wastes or hazardous constituents as defined by Section 1004(5) of RCRA, 42 U.S.C. §6903(5). These are also hazardous wastes or hazardous constituents within the meaning of Section 3001 of RCRA, 42 U.S.C. §6921, and 40 CFR Part 261.
- D. There is or has been a release of hazardous wastes or hazardous constituents into the environment from the Facility.
- E. The actions required by this Order are necessary to develop information about the extent of hazardous waste contamination of the Facility and soils and groundwater around and near the Facility.
- F. The actions required by this Order are necessary to protect human health and welfare and the environment.

VI. WORK TO BE PERFORMED

Pursuant to Section 3008(h) of RCRA, 42 U.S.C. §6928(h), Respondent is hereby ordered to perform the following acts in the manner and by the dates specified herein. All work undertaken

pursuant to this Order shall be performed in a manner consistent with, at a minimum: the attached Scopes of Work; RCRA Facility Investigation (RFI) Workplan, Corrective Measures Study (CMS), Corrective Measures Implementation Program Plan, and all other Workplans, RCRA and its implementing regulations, and relevant U.S. EPA guidance documents. Relevant guidance includes, but is not limited to the "RCRA Facility Investigation (RFI) Guidance" (EPA 530/SW87-001); and the "RCRA Groundwater Monitoring Technical Enforcement Guidance Document" (OSWER Directive 9950.1, September 1986).

A. Within 45 (forty-five) days of the effective date of this Order, Respondent shall submit to U.S. EPA a Description of Current Conditions (DOCC) report, describing prior use history of the Facility, use of surrounding areas, known nature and extent of contamination, and a brief synopsis of RCRA Closure work performed to date. Respondent shall also submit a RCRA Facility Investigation (RFI) and Corrective Measures Study (CMS) Workplan ("RFI and CMS Workplans"). The RFI and CMS Workplans and activities conducted pursuant to this Order are subject to approval by U.S. EPA and shall be performed in a manner consistent with the Corrective Action Plans contained in Attachments I and II. Attachments I and II to this Order are incorporated by reference as if fully set forth herein. The RFI and CMS Workplans shall be developed in accord with RCRA, its implementing regulations, and relevant U.S. EPA guidance documents.

B. The RFI Workplan shall be designed to define and correct the presence, magnitude, extent, direction, and rate of movement of any hazardous wastes or hazardous constituents within and beyond the Facility boundary. The RFI Workplan shall document the procedures the Respondent shall use to conduct those investigations necessary: (1) to characterize the potential pathways of contaminant migration; (2) to characterize the source(s) of contamination; (3) to define the degree and extent of contamination; and (4) to identify actual or potential receptors. The CMS Workplan shall support the development of alternatives from which a corrective measure will be selected by U.S. EPA. A specific schedule for implementation of all activities shall be included in the RFI and CMS Workplans.

C. In accordance with Section D herein, the RFI and CMS Workplans shall include: (1) a Project Management Plan; (2) a Data Collection Quality Assurance Plan; (3) a Data Management Plan; (4) a Health and Safety Plan; and (5) a Community Relations Plan.

D. Within thirty days of Respondent's receipt of notification of U.S. EPA's selection of the corrective measure, Respondent shall submit to U.S. EPA a Corrective Measures Implementation Program Plan ("CMI Program Plan"). The CMI Program Plan is subject to approval by U.S. EPA and shall be performed in a manner consistent with the CMI Scope of Work contained in Attachment III. Attachment III to this Order is incorporated by reference

as if fully set forth herein. The CMI Program plan shall be developed in accord with RCRA, its implementing regulations, and relevant U.S. EPA guidance documents.

E. The CMI Program Plan shall be designed to facilitate the design, construction, operation, maintenance and monitoring of corrective measures at the Facility. In accordance with Attachment III herein, the CMI Program Plan shall also include: (1) a Program Management Plan; (2) a Community Relations Plan; (3) Design Plans and Specifications; (4) an Operation and Maintenance Plan; (5) a Cost Estimate; (6) Project Schedule; (7) a Health and Safety Plan; and (8) a Construction Quality Assurance Plan.

F. Within thirty (30) days of approval or modification by U.S. EPA of any Workplans, Respondent shall commence work and implement the tasks required by the Workplans submitted pursuant to the Scope(s) of Work in Attachments I through III in accordance with the standards, specifications, and schedule stated in the Workplans as approved or modified by U.S. EPA.

G. Respondent shall provide monthly written progress reports to U.S. EPA. These reports must be submitted to U.S. EPA no later than ten (10) days after the end of each month following the effective date of this Order. The progress reports shall conform to requirements in relevant Scope(s) of Work contained in Attachments I through III.

H. Respondent shall provide draft and final RFI, CMS, and CMI reports to U.S. EPA in accordance with the schedules contained in the approved plans.

I. U.S. EPA shall review all draft or final reports, and notify Respondent in writing of U.S. EPA's approval, approval with modifications, or disapproval of the report or any part thereof. In the event of any disapproval, U.S. EPA shall specify in writing the deficiencies and reasons for such disapproval. Within thirty (30) days of receipt of U.S. EPA's disapproval of any report, Respondent shall amend and submit a revised report incorporating U.S. EPA's comments. U.S. EPA approved reports shall be deemed incorporated into and part of this Order.

J. Three (3) copies of all documents, including Workplans, Program Plans, preliminary and final reports, progress reports, and other correspondence to be submitted pursuant to this Order shall be hand delivered or sent by certified mail, return receipt requested, or sent by Express Mail to the U.S. EPA Project Coordinator designated pursuant to Sections XII and XIII of this Order.

K. All work performed pursuant to this Order shall be under the direction and supervision of a professional engineer or geologist with expertise in hazardous waste site cleanup. Within ten (10) days of the effective date of this Order, Respondent shall notify U.S. EPA in writing of the name, title,

and qualifications of the engineer or geologist, and of any contractors or subcontractors and their personnel to be used in carrying out the terms of this Order. After such notice, Respondent shall provide U.S. EPA with fifteen (15) days notice of any intended change in the engineer or geologist, and contractors or subcontractors and their personnel.

L. Consistent with the objectives of this Order U.S. EPA may determine that certain tasks, including investigatory work or engineering evaluation, are necessary in addition to the tasks and deliverables included in the RFI, CMS, or CMI Workplans when new findings indicate that such additional work is necessary and is not covered by Attachments I through III. In such cases, U.S. EPA shall request in writing that Respondent perform the additional work and shall specify the basis and reasons for U.S. EPA's determination that the additional work is necessary. Within fifteen (15) days after receipt of such request, Respondent shall have the opportunity to meet with U.S. EPA to discuss the additional work U.S. EPA has requested. Thereafter, Respondent shall perform the additional work according to an U.S. EPA approved Workplan. All additional work performed by Respondent under this paragraph shall be performed in a manner consistent with this Order.

VII. PUBLIC COMMENT AND PARTICIPATION

A. Upon approval by U.S. EPA of a Corrective Measure Study Final Report, U.S. EPA shall make both the RCRA Facility

Investigation Final Report (or summary of report) and the Corrective Measure Study Final Report (or summary of report) and a summary of U.S. EPA's proposed corrective measure and U.S. EPA's justification for proposing selection of that corrective measure available to the public for review and comment for at least twenty-one (21) days.

B. Following the public review and comment period, U.S. EPA will notify Respondent of the corrective measure selected by U.S. EPA. If the corrective measure recommended in the Corrective Measure Study Final Report is not the corrective measure selected by U.S. EPA after consideration of public comments, U.S. EPA will inform Respondent in writing of the reasons for such decision, and the Respondent shall modify the RFI/CMS and implement the corrective measure selected as directed by U.S. EPA.

C. The Administrative Record supporting the selection of the corrective measure will be made available for public review.

VIII. QUALITY ASSURANCE

Throughout all sample collection and analysis activities, Respondent shall use U.S. EPA-approved quality assurance, quality control, and chain-of-custody procedures as specified in the approved Workplans. In addition, Respondent shall:

- A. Follow the U.S. EPA guidance for sampling and analysis contained in the document entitled "RCRA Groundwater

Monitoring Technical Enforcement Guidance Document",
September 1986.

- B. Consult with U.S. EPA in planning for, and prior to, field sampling and laboratory analysis.
- C. Inform the U.S. EPA Project Coordinator in advance which laboratories will be used by Respondent and ensure that the U.S. EPA personnel and U.S. EPA authorized representatives have reasonable access to the laboratories and personnel used for analyses.
- D. Ensure that laboratories used by Respondent for analyses shall perform such analyses according to U.S. EPA methods included in "Test Methods for Evaluating Solid Waste" (SW-846, Final Update III, 1997 or most recent) or other methods deemed satisfactory to U.S. EPA. If methods other than U.S. EPA methods are to be used, Respondent shall submit all protocols to be used for analyses to U.S. EPA for approval within thirty (30) days prior to the commencement of analyses.
- E. Ensure that laboratories used by Respondent for analyses participate in a quality assurance/quality control program equivalent to that which is followed by U.S. EPA. As part of such a program, and upon request by U.S. EPA, such laboratories shall perform analyses

of samples provided by U.S. EPA to demonstrate the quality of the analytical data.

IX. ON-SITE AND OFF-SITE ACCESS

A. U.S. EPA and/or any U.S. EPA representative or contractor are authorized to enter and freely move about all property at the Facility during the effective dates of this Order for the purposes of, among other things: interviewing facility personnel and contractors; inspecting records, operating logs, and contracts related to the facility; reviewing the progress of the Respondent in carrying out the terms of this Order; conducting such tests, sampling, or monitoring as U.S. EPA or its Project Coordinator deem necessary; using a camera, sound recording, or other documentary type equipment; and verifying the reports and data submitted to U.S. EPA by the Respondent. The Respondent shall permit such persons to inspect and copy all records, files, photographs, documents, and other writings, including all sampling and monitoring data, that pertain to work undertaken pursuant to this Order.

B. To the extent that work required by this Order, or by any approved Workplans prepared pursuant hereto, must be done on property not owned or controlled by Respondent, Respondent shall use its best efforts to obtain site access agreements from the present owner(s) of such property within thirty (30) days of approval of any Workplan for which site access is required. Best efforts as used in this paragraph shall include, at a

minimum, a certified letter from Respondent to the present owners of the property requesting access agreements to permit Respondent and U.S. EPA and its authorized representatives or contractors to access the property. Any such access agreement shall be incorporated by reference into this Order. In the event that agreements for access are not obtained within thirty (30) days of the effective date of this Order, Respondent shall notify U.S. EPA in writing within thirty (30) days thereafter regarding both the efforts undertaken to obtain access and its failure to obtain the agreements. In the event U.S. EPA obtains access, Respondent shall undertake U.S. EPA approved work on such property.

C. Nothing in this Section limits or otherwise affects U.S. EPA's right of access and entry pursuant to applicable law including RCRA and CERCLA.

X. SAMPLING AND DATA/DOCUMENT AVAILABILITY

A. The Respondent shall submit to U.S. EPA the results of all sampling and/or tests or other data generated by, or on behalf of the Respondent, in accordance with the requirements of this Order and its Attachments.

B. Respondent shall notify U.S. EPA at least fourteen (14) days before engaging in any field activities, such as well drilling, installation of equipment, or sampling. At the request of U.S. EPA, Respondent shall provide, or allow U.S. EPA or its

authorized representative to take split samples of any samples collected by Respondent pursuant to this Order.

C. Respondent may assert a business confidentiality claim covering all or part of any information submitted to U.S. EPA pursuant to this Order. Any assertion of confidentiality shall be adequately substantiated by Respondent when the assertion is made. Information determined to be confidential by U.S. EPA shall be disclosed only to the extent permitted by 40 CFR Part 2. If no such confidentiality claim accompanies information when it is submitted to U.S. EPA, it may be made available to the public by U.S. EPA without further notice to the Respondent. Physical or analytical data shall not be deemed confidential.

XI. RECORD PRESERVATION

Respondent shall preserve during the pendency of this Order and for a minimum of six (6) years after its termination, all data, records, and documents in its possession or in the possession of its divisions, officers, employees, agents, contractors, successors, and assigns which relate in any way to this Order or to hazardous waste management and/or disposal at the Facility. After six (6) years, Respondent shall make such records available to U.S. EPA for inspection or shall provide copies of any such records to U.S. EPA. Respondent shall notify U.S. EPA, thirty (30) days prior to the destruction of any such records, and shall provide U.S. EPA with the opportunity to take possession of any such records.

XII. PROJECT COORDINATOR

A. Within ten (10) days of the effective date of this Order, the U.S. EPA and Respondent each shall designate a Project Coordinator. Respondent shall notify U.S. EPA in writing of the Project Coordinator it has selected. Each Project Coordinator shall be responsible for overseeing the implementation of this Order. The U.S. EPA Project Coordinator will be U.S. EPA's designated representative at the Facility. All communications between the Respondent and the U.S. EPA, and all documents, reports, approvals and other correspondence concerning the activities performed pursuant to the terms and conditions of this Order, shall be directed through the Project Coordinators.

B. The parties shall provide at least fourteen (14) days written notice to change Project Coordinators.

C. If U.S. EPA determines that activities in compliance or non-compliance with this Order have caused or may cause a release of hazardous waste, or a hazardous constituent, or a threat to human health or the environment, or that Respondent is not capable of undertaking any studies or corrective measures ordered, U.S. EPA may order Respondent to stop further implementation of this Order for such period of time as U.S. EPA determines may be needed to abate any such release or threat and/or to undertake any action which U.S. EPA determines is necessary to abate such release or threat.

D. The absence of the U.S. EPA Project Coordinator from the Facility shall not be cause for the stoppage of work.

XIII. NOTIFICATION

Unless otherwise specified, reports, correspondence, approval, disapproval, notices, or other submissions relating to or required under this Order shall be in writing and shall be distributed as follows:

- A. Three copies of all documents to be submitted to the U.S. EPA should be sent to:

United States Environmental Protection Agency
Region 5
RCRA Enforcement and Compliance Assurance Branch,
77 W. Jackson - DE 9J
Chicago, Illinois 60604
Attention: Brian P. Freeman, Project Manager

XIV. PENALTIES FOR NONCOMPLIANCE

If Respondent fails to comply with the terms and provisions of this Order, U.S. EPA may commence a subsequent action to require compliance and to assess a civil penalty not to exceed TWENTY-FIVE THOUSAND (\$25,000) DOLLARS for each day of non-compliance, or issue another Order.

XV. RESERVATION OF RIGHTS

- A. U.S. EPA expressly reserves all rights that it may have, including the right both to disapprove of work performed by

Respondent pursuant to this Order and to request that Respondent perform tasks in addition to those stated in the Scopes of Work.

B. U.S. EPA hereby reserves all of its statutory and regulatory powers, authorities, rights, remedies, both legal and equitable, which may pertain to Respondent's failure to comply with any of the requirements of this Order, including without limitation the assessment of penalties under Section 3008(h)(2) of RCRA, 42 U.S.C. §6928(h)(2). This Order shall not be construed as a covenant not to sue, release, waiver, or limitation of any rights, remedies, power and/or authorities, civil or criminal, which U.S. EPA has under RCRA, CERCLA, or any other statutory, regulatory, or common law enforcement authority of the United States.

C. Compliance by Respondent with the terms of this Order shall not relieve Respondent of its obligations to comply with RCRA or any other applicable local, State, or Federal laws and regulations.

D. This Order shall not limit or otherwise preclude the Agency from taking additional enforcement action pursuant to Section 3008(h) of RCRA or other available legal authorities should the Agency determine that such actions are warranted and necessary to protect human health and the environment.

E. This Order is not intended to be nor shall it be construed to be a permit. This Order does not relieve Respondent of any

obligation to obtain and comply with any local, State, or Federal permits.

F. U.S. EPA reserves the right to perform any portion of the work ordered herein or any additional site characterization, feasibility study, and response/corrective actions as it deems necessary to protect human health and the environment. U.S. EPA may exercise its authority under CERCLA to undertake removal actions or remedial actions at any time. In any event, U.S. EPA reserves its right to seek reimbursement from Respondent for such additional costs incurred by the United States.

Notwithstanding compliance with the terms of this Order, Respondent is not released from liability, if any, for the costs of any response actions taken by U.S. EPA.

XVI. OTHER CLAIMS

Nothing in this Order shall constitute or be construed as a release from any claim, cause of action, or demand in law or equity against any person, firm, partnership, or corporation for any liability it may have arising out of, or relating in any way to, the generation, storage, treatment, handling, transportation, release, or disposal of any hazardous constituents, hazardous substances, hazardous wastes, pollutants, or contaminants found at, taken to, or taken from the Facility.

XVII. OTHER APPLICABLE LAWS

All action required to be taken by the Respondent pursuant to this Order shall be undertaken in accordance with the requirements of all applicable local, State, and Federal laws and regulations. Respondent shall obtain or cause its representatives to obtain all permits and approvals necessary under such laws and regulations.

XVIII. INDEMNIFICATION OF THE UNITED STATES GOVERNMENT

Respondent shall indemnify, save, and hold harmless the United States Government, its agencies, departments, agents, and employees, from any and all claims or causes of action arising from or on account of acts or omissions of Respondent, or its agents, independent contractors, receivers, trustees, and assigns, in carrying out the activities required by this Order. The United States Government shall not be represented or construed to be a party to any contract entered into by Respondent in carrying out activities pursuant to this Order.

XIX. FINANCIAL RESPONSIBILITY

A. Within thirty (30) days of the effective date of this Order, the Respondent shall provide TEN MILLION DOLLARS (\$10,000,000) in financial assurance using one or more of the mechanisms allowable under 40 CFR 265.143 for the term and/or conditions of this Order.

B. If the Respondent fails to perform any of the terms or conditions of this Order, then the financial assurance funds will be available to U.S. EPA to perform such terms or conditions, provided that prior to drawing upon any financial assurance instrument U.S. EPA shall notify the Respondent in writing of the alleged failure to perform and provide the Respondent with a reasonable period of time in which to remedy the alleged non-performance.

XX. SUBSEQUENT MODIFICATION

A. This Order may be amended by U.S. EPA to ensure protection of human health and the environment. Such amendments shall be in writing, shall have as their effective date the date on which they are signed by U.S. EPA, and shall be incorporated into this Order.

B. Any reports, plans, specifications, schedules, and attachments required by this Order are, upon written approval by U.S. EPA, incorporated into this Order. Any noncompliance with such U.S. EPA-approved reports, plans, specifications, schedules, and attachments shall be considered a violation of this Order and shall subject Respondent to the statutory penalty provisions referenced in Section XIV of this Order.

C. No informal advice, guidance, suggestions, or comments by U.S. EPA regarding reports, plans, specifications, schedules, and any other writing submitted by Respondent will be construed

as relieving Respondent of its obligation to obtain written approval, if and when required by this Order.

XXI. SEVERABILITY

If any provision or authority of this Order or the application of this Order to any party or circumstances is held by any judicial or administrative authority to be invalid, the application of such provisions to other parties or circumstances and the remainder of the Order shall remain in force and shall not be affected thereby.

XXII. NOTICE OF OPPORTUNITY TO REQUEST A HEARING

In accordance with Section 3008(b) of RCRA, 42 U.S.C. §6928(b), this Order shall become final unless Respondent files a response and requests a public hearing in writing no later than (30) days after service of the Order and Notice of Opportunity for Hearing. The response and request for hearing must be filed with:

Regional Hearing Clerk
United States Environmental Protection Agency
77 W. Jackson Street
Chicago, Illinois 60604

A copy of the response and request for hearing and copies of all subsequent documents filed in this action must be sent to:

Andre Daugavietis
Office of Regional Counsel (14J)
United States Environmental Protection Agency
77 W. Jackson Street

Chicago, Illinois 60604

The response must specify each factual or legal determination or relief provision in the Order that the Respondent disputes and shall specify the basis upon which it disputes such determination or provision. The response should also include any proposals for modification of the Order. Any hearings on the Order will be conducted in accordance with the attached hearing procedures.

If Respondent fails to file a response and request for hearing within thirty (30) days after service of the Order, Respondent will be deemed to have waived its right to a hearing, and the Order will become final.

XXIII. SETTLEMENT CONFERENCE

Whether or not Respondent requests a hearing, an informal conference may be requested at any time in order to discuss the facts of this case and to discuss potential settlement. To request an informal conference contact:

Brian P. Freeman
United States Environmental Protection Agency
Region 5
77 W. Jackson, DE-9J
Chicago, IL 60604

A request for an informal conference does not extend the thirty (30) day period during which a written response and request for

a hearing must be submitted. The informal conference procedure may be pursued simultaneously with the public hearing procedure.

XXIV. TERMINATION AND SATISFACTION

The provisions of this Order shall be deemed satisfied upon Respondent's receipt of written notice from U.S. EPA that Respondent has demonstrated, to the satisfaction of U.S. EPA, that the terms of this Order, including any additional tasks determined by U.S. EPA to be required pursuant to this Order, or any continuing obligation or requirements [e.g., Record Retention, Reservation of Rights] have been satisfactorily completed.

XXV. SURVIVABILITY/PERMIT INTEGRATION

Subsequent to the issuance of this Order, a RCRA permit may be issued to the Facility incorporating the requirements of this Order by reference into the permit.

Any requirements of this Order shall not terminate upon the issuance of a RCRA permit unless the requirements are expressly replaced by requirements in the permit.

XXVI. EFFECTIVE DATE

This Order shall become final thirty (30) days after it is served unless Respondent requests a public hearing pursuant to RCRA Section 3008(b), 42 U.S.C. §6928(b).

IT IS SO ORDERED:

ATTACHMENT I

RCRA Facility Investigation and Corrective Measures Study
Scope of Work

ATTACHMENT I
RCRA Facility Investigation and Corrective Measures Study
Scope of Work

Purpose

The purpose of the RCRA Facility Investigation (RFI) is to determine the nature and extent of releases of hazardous waste or constituents from regulated units, solid waste management units, areas of concern, and other source areas at and from the Facility and to gather all necessary data to support a Corrective Measures Study. Respondent shall furnish all personnel, materials, and services necessary for, or incidental to, performing the RFI.

Scope

The RCRA Facility Investigation is one step in the corrective action program. The RFI consists of the following components, which for clarity have been designated as sections.

Section I: Description of Current Conditions

- A. Facility Background
- B. Preliminary Assessment of Nature and Extent of Contamination
- C. Implementation of Interim/Stabilization Measures

Section II: RFI Workplan

- A. Purpose/Objectives
- B. Project Management Plan
- C. Quality Assurance Project Plan
- D. Data Management and Reporting Plan
- E. Health and Safety Plan
- F. Public Involvement Plan
- G. Schedule for Facility Investigation

Section III: Facility Investigation

- A. Purpose/Objectives
- B. Environmental Setting
- C. Source Characterization
- D. Contamination Characterization
- E. Potential Receptor Identification

Section IV: Investigation Results and Analysis

- A. Data Analysis
- B. Media Cleanup Standards
- C. Analysis of Risk

Section V: Progress Reports

Section VI: Proposed Schedule

Section I: Description of Current Conditions

Respondent shall submit to U.S. EPA for review and comment, a report (as set forth below) providing the background information on the Facility, contamination, and remediation work performed to date. Respondent shall indicate in the applicable section if some of this information is not available. This report shall contain information that is consistent with the data gathered during the RCRA Facility Assessment. The current condition report shall be submitted prior to the submission of the RFI to allow the U.S. EPA to review it.

A. Facility Background

Respondent's report shall summarize the regional location, pertinent boundary features, general facility physiography, hydrogeology, and historical use of the facility for the treatment, storage, or disposal of solid and hazardous waste. Respondent's report shall include:

1. *Maps.* All maps shall be of sufficient detail and accuracy to locate and report all current and future work performed at the site. Aerial photographs may be used with solid waste management units, areas of concern, and other source areas superimposed on them. Maps shall depict the following:

- General geographic location;
- Property lines, with the owners of all adjacent property clearly indicated;
- Topography and surface drainage depicting all waterways, wetlands, flood plains, water features, drainage patterns, and surface-water containment areas;
- All tanks, buildings, utilities, paved areas, easements, rights-of-way, and other features;
- All solid or hazardous waste treatment, storage, or disposal areas active after November 19, 1980;
- All known past solid or hazardous waste treatment, storage or disposal areas regardless of whether they were active on or after November 19, 1980;

- All known past and present product and waste underground tanks or piping;
 - Surrounding land uses (residential, commercial, industrial, agricultural, recreational);
 - The location of all municipal, public, private and industrial wells, along with all monitoring wells, at the Facility and within a 1-mile radius of the Facility. These wells shall be clearly labeled and ground and top of casing elevations and construction details included, if available (these elevations and details may be included as an attachment); and
 - Wind rose and meteorology.
2. A history and description of ownership and operation, solid and hazardous waste generation, treatment, storage and disposal activities at the facility.
3. Approximate dates or periods of past product and waste spills, identification of the materials spilled, the amount spilled, the location where spilled, and a description of the response actions conducted (local, State, or Federal response units or private parties), including any inspection reports or technical reports generated as a result of the response.
4. A summary of past permits applied for and/or received, any enforcement actions and their subsequent responses and a list of documents and studies prepared for the facility. This may include information from previous and/or present owner/operators, if available.
5. A general description of major habitat types (e.g., grasslands, forests, lakes, streams, wetlands) located in and adjacent to the facility. In delineating wetlands, the U.S. Fish and Wildlife Service's National Wetland Inventory maps should be consulted. The U.S. Army Corps of Engineers should be consulted and wetlands should be delineated using the Federal Manual for Identifying and Delineating Jurisdictional Wetlands.
6. A general description of plants and animals at and adjacent to the facility, including the following: qualitative observations of resident plants and animals

(birds, mammals, fish, stream benthos, etc.); and classification of vegetation community types. Threatened and endangered species possibly on or near the facility should be identified as early as possible.

B. Preliminary Assessment of Nature and Extent of Contamination

Respondent shall prepare and submit for U.S. EPA review, a preliminary report describing the existing information on the nature and extent of contamination.

1. Respondent's report shall summarize all possible source areas of contamination. This, at a minimum, shall include all RCRA-regulated units, solid waste management units, areas of concern, spill areas, and other suspected source areas of contamination. For each area, Respondent shall identify the following:

- Location of unit/area (to be depicted on facility map provided in Section I.A.1);
- Quantities of solid and hazardous wastes (both managed and spilled or released);
- Type of hazardous waste or constituents (both causing or potentially causing contamination), to the extent known;
- Identification of areas where additional information is necessary; and
- The results of previous investigations.

2. Respondent shall prepare a preliminary assessment and description of the existing degree and extent of contamination. This shall include:

- For each medium where the Order identifies a release (e.g., soil, groundwater, surface water, sediments, etc.), a description of the existing extent of contamination. This description must include all available monitoring data and qualitative information on the locations and levels of contamination at the facility (both on-site and off-site). Include biodata (e.g., fishkills, distressed vegetation, abnormal individuals of a species, carcasses, tissue

studies, etc.). Include a general assessment of the data quality, a map showing the location of all existing sampling points and potential source areas and contour maps showing any existing ground water plumes at the facility. Highlight potential ongoing release areas that would warrant use of interim measures (see Section I.C. Implementation of Interim/Stabilization Measures); and

- A list and brief description of all previous investigations that have occurred at the facility, who they were conducted for (i.e., agency) and agency contacts.

3. Respondent shall submit a report that identifies the potential impact(s) on human health and the environment, including potential exposure pathways, migration routes, and potential receptors for all relevant land use scenarios related to the sources of contamination identified as relevant in paragraph 1 above. A site-conceptual model should be created to illustrate these pathways, routes, and receptors. The report shall include, at a minimum:

- All potential migration pathways, including information on geology, pedology, hydrogeology, physiography, hydrology, water quality, foodwebs, meteorology, air quality, chemistry, fate and transport characteristics associated with affected media, and natural attenuation, as appropriate;
- Physical properties of known contaminants;
- An assessment of whether off-site migration of contaminants has occurred or is likely to occur;
- An assessment of media-specific potential human exposure pathways (e.g., ingestion, inhalation, dermal contact), including groundwater and surface water use;
- Identification of current and future land use;
- Identification of current or potential receptors at risk including demography and identification of possible sensitive subpopulations (e.g., schools, homes for the elderly, hospitals, and ecosystems).

C. Implementation of Interim/Stabilization Measures

Respondent's report shall document past, present, or proposed interim/stabilization measures at the facility. This shall include:

- Objectives of the interim/stabilization measures: how the measure is mitigating a potential threat to human health and the environment and/or is consistent with and integrated into any long-term solution at the facility;
- Design, construction, operation, and maintenance requirements;
- Schedules for design, construction and monitoring;
- Schedule for progress reports; and
- Data in support of the potential need for future interim measures or related to any assessment undertaken to determine the need for future interim/stabilization measures.

Section II: RFI Workplan

A. Purpose/Objectives

Respondent shall prepare an RFI Workplan. The purpose of the RFI Workplan is to present to U.S. EPA the specific plans to characterize the nature and extent of contamination. The RFI Workplan shall include the development of several plans, which will be prepared concurrently. During the RCRA Facility Investigation, it may be necessary to revise the RFI Workplan to increase or decrease the detail of information collected to accommodate facility-specific situations.

B. Project Management Plan

Respondent shall prepare a Project Management Plan (PMP) which will include a discussion of the technical approach, schedules, and personnel. The PMP will also include a description of qualifications of personnel performing or directing the RFI,

including contractor personnel. This plan shall also document the overall management approach to the RFI.

C. Quality Assurance Project Plan

Respondent shall prepare a plan to document all monitoring procedures, sampling, field measurements and sample analysis performed during the investigations so as to ensure that all information, data, and resulting decisions are technically sound, statistically valid, and properly documented. The QAPP shall be prepared in accordance with Attachment V. A pre-QAPP meeting shall be held prior to preparation of the QAPP. Participants shall include, but are not limited to Respondent, their QAPP preparer, laboratory representatives, U.S. EPA Project Coordinator, and U.S. EPA Quality Assurance representatives.

A performance audit may be conducted by U.S. EPA on the laboratories selected by Respondent. This audit will be completed and laboratories approved for use on the project prior to the start of field work for the RFI.

D. Data Management and Reporting Plan

Respondent shall develop and initiate a Data Management and Reporting Plan to document and track investigation data and results. This plan shall identify and set up data documentation materials and procedures, project file requirements, and project-related progress reporting procedures and documents. The plan shall also provide the format to be used to present the raw data and conclusions of the interim measures.

All groundwater data shall be submitted in a computer accessible format, i.e., diskette. The format used shall be compatible with the U.S. EPA, Region 5 groundwater database known as the Ground Water Information Tracking System (GRITS), Version 4.0.

E. Health and Safety Plan

Respondent shall submit a Health and Safety Plan to U.S. EPA for review, although it does not require approval by U.S. EPA.

1. Major elements of the Health and Safety Plan may include:

- Facility description, including availability of resources such as roads, water supplies, electricity and telephone services;
- Description of the known hazards and evaluation of the risks associated with the incident and with each activity conducted;
- A list of key personnel and alternates responsible for site safety, response operations, and for protection of human health;
- Description of the levels of protection to be worn by personnel;
- Delineation of the work area;
- Procedures to control site access;
- Description of decontamination procedures for personnel and equipment;
- Site emergency procedures;
- Emergency medical care for injuries and toxicological problems;
- Description of requirements for an environmental surveillance program;
- Routine and special training required for response personnel; and
- Procedures for protecting workers from weather-related problems;

2. The Facility Health and Safety Plan shall be consistent with:

- NIOSH Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities (1985);
- U.S. EPA Order 1440.1 - Respiratory Protection;
- U.S. EPA Order 1440.3 - Health and Safety Requirements for Employees engaged in Field Activities;

- Facility Contingency Plan;
- U.S. EPA Standard Operating Safety Guide (1984);
- OSHA regulations particularly in 29 CFR 1910 and 1926;
- State and local regulations; and
- Other U.S. EPA guidance as provided.

F. Public Involvement Plan

The Public Involvement Plan (PIP) prepared by Respondent shall be submitted to U.S. EPA for comment and approval prior to use. Respondent must never appear to represent or speak for the U.S. EPA before the public, other government officials, or the media.

Public involvement activities that may be required of Respondent include the following:

- Conducting an open house or informal meeting (i.e., availability session) in a public location where people can talk to Agency officials and Respondent on a one-to-one basis;
- Preparing fact sheets summarizing current or proposed corrective action activities (all fact sheets should be reviewed by the U.S. EPA prior to public distribution);
- Communicating effectively with people who have vested interest in the corrective action activities, (e.g., providing written or verbal information in the foreign language of a predominantly non-English-speaking community); and
- Maintaining an easily accessible repository (such as a town hall or public library or the Facility itself, in some limited circumstances) of information on the facility-specific corrective action program, including the order, approved workplans, and/or other reports.

A schedule for community relations activities shall be included in the PIP.

G. Schedule for Facility Investigation

1. Sampling
2. Analysis
3. Reports
4. Public Involvement Activities
5. Laboratory or Bench-Scale Studies

Section III: Facility Investigation

A. Purpose/Objectives

The Facility Investigation phase of the RFI is the first step of the implementation process. Prior to this implementation phase, all documentation and reports for the Description of Current Conditions and RFI Workplan are drafted and submitted to U.S. EPA for review. Respondent must have approval prior to implementing the procedures outlined in the RFI Workplan. Throughout the RFI implementation phase, it is critical that Respondent comply with report submission requirements. Respondent shall submit both progress reports and a draft RFI Report to U.S. EPA for review. At the direction of U.S. EPA, Respondent shall develop in final format the RFI Report, which will incorporate any comments received on the draft report.

Respondent shall conduct those additional investigations (including sampling) as approved in the RFI Workplan to: characterize the facility (Environmental Setting); define the source (Source Characterization); define the degree and three dimensional extent of contamination (Contamination Characterization); and identify actual or potential receptors (Potential Receptors Identification).

The investigations shall result in data of adequate technical quality to support the development and evaluation of the corrective measure alternative(s) during the CMS and/or IMs.

B. Environmental Setting

Respondent shall collect information to supplement and verify existing information on the environmental setting at the facility (when information already submitted to U.S. EPA is not

sufficient). The U.S. EPA may request additional information not included on the following lists. Respondent shall characterize the following areas:

1. Hydrogeology

Respondent shall conduct a program to evaluate hydrogeologic conditions at the facility. This program shall provide the following information:

- A description of the regional and facility-specific geologic and hydrogeologic characteristics affecting groundwater flow beneath the facility, including:
 - Regional and facility-specific stratigraphy including: description of strata including strike and dip, and identification of stratigraphic contacts;
 - Structural geology including: description of local and regional structural features (e.g., folding, faulting, tilting, jointing, etc.);
 - Depositional history;
 - Areas and amounts of recharge and discharge;
 - Influence of tidal actions on groundwater flow regimes near large rivers;
 - Regional and facility-specific groundwater flow patterns; and
 - Seasonal variations in the groundwater flow regime.
- An analysis of any topographic features that might influence the groundwater flow system. (Note: Stereographic analysis of aerial photographs may aid in this analysis.)
- A representative and accurate classification and description of the hydrogeologic units based on field data, tests, and cores that may be part of the migration pathways at the facility (i.e., the

aquifers and any intervening saturated and unsaturated zones), including, but not limited to:

- Hydraulic conductivity, intrinsic permeability [particularly when non-aqueous phase liquids (NAPLs) are present], and porosity (total and effective);
- Lithology, grain size, sorting, degree of cementation;
- An interpretation of hydraulic interconnections between saturated zones; and
- The attenuation capacity and mechanisms of the natural earth materials (e.g., ion exchange capacity, organic carbon content, mineral content, etc.).

- Based on field studies and cores, structural geology and hydrogeologic cross sections showing the extent (depth, thickness, lateral extent) of hydrogeologic units that may be part of the migration pathways identifying:

- Sand and gravel in unconsolidated deposits;
- Zones of fracturing or channeling in consolidated and unconsolidated deposits;
- Zones of higher permeability or low permeability that might direct and restrict the flow of contaminants;
- The uppermost aquifer: geologic formation, group of formations, or part of a formation capable of yielding a significant amount of groundwater to wells or springs;
- Water-bearing zones above the first confining layer that may serve as a pathway for contaminant migration, including perched zones of saturation; and
- All other geologic formations, or parts thereof, yielding a significant amount of groundwater.

- Based on data obtained from groundwater monitoring wells and piezometers installed upgradient and downgradient of the potential contaminant source, a representative description of water level or fluid pressure monitoring including:
 - Water level contour and/or potentiometric maps;
 - Hydrologic cross sections showing vertical flow gradients;
 - The flow system, including the vertical and horizontal components of flow; and
 - Any temporal changes in hydraulic gradients, (due to tidal or seasonal influences, etc.)
- A description of man-made influences that may affect the hydrogeology of the site, identifying:
 - Active and inactive local water-supply and production wells with an approximate schedule of pumping; and
 - Man-made hydraulic structures (sewers, pipelines, french drains, ditches, unlined ponds, septic tanks, NPDES outfalls, retention areas, etc.).

2. Soils

Respondent shall conduct a program to characterize the soil and rock units potentially affected by contaminant release(s). Such characterization shall include, but not be limited to, the following information:

- Where remediation by removal of soils is the only corrective measure option, provide map(s) and perpendicular cross sections showing:
 - The extent of contamination;
 - Depth of groundwater; and

- The consistency and distribution of soils [using the Unified Soil Classification System (ASTM D 2487)];
- Where remediation by removal is the likely option, and it is necessary to determine the extent of migration (e.g., to assess the mobility of wastes from an unlined surface impoundment or landfill), provide the following in addition to the requirements immediately above:
 - Depth to bedrock and the characteristics of the bedrock including discontinuities such as faults, fissures, joints, fractures, sinkholes, etc.;
 - A detailed soil survey conducted according to USDA Soil Conservation Service (SCS) procedures including:
 - USDA Textural Soil Classification and soil profiles showing stratifications or zones which may affect or direct the subsurface flow;
 - Hydraulic conductivity and the SCS hydrologic group classification of A, B, C or D;
 - Relative permeability (only if the waste may have changed the soil's hydraulic conductivity, such as concentrated organics);
 - Storage capacity (if excavated soil will be stored);
 - Shrink-swell potential (where extreme dry weather could lead to the formation of cracks);
 - Potential for contaminant transport via erosion, using the Universal Soil Loss Equation;
 - Soil sorptive capacity;

- Cation exchange capacity;
- Soil organic content; and
- Soil pH.
- The following contaminant characteristics must be included:
 - Physical state;
 - Viscosity;
 - pH;
 - pKa;
 - Density;
 - Water solubility;
 - Henry's Law Constant;
 - K_{ow} ;
 - Biodegradability; and
 - Rates of hydrolysis, photolysis and oxidation.
- Where in-situ soil treatment will likely be the remediation, the above information and the following additional information must be provided:
 - Bulk density;
 - Porosity;
 - Grain size distribution;
 - Mineral content;
 - Soil moisture profile;
 - Unsaturated hydraulic conductivity;

- Effect of stratification on unsaturated flow;
and
- Infiltration and evapotranspiration.

3. Surface Water and Sediment

Respondent shall conduct a program to characterize the surface water bodies likely to be affected by releases from the facility. Such characterization shall include the following activities and information:

- Description of the temporal and permanent surface water bodies including:
 - For lakes: location, elevation, surface area, inflow, outflow, depth, temperature stratification, and volume;
 - For impoundments: location, elevation, surface area, depth, volume, freeboard, and purpose of impoundment;
 - For rivers, streams, ditches, drains, swamps and channels: location, elevation, flow, velocity, depth, width, seasonal fluctuations, and flooding tendencies (i.e., 100-year event);
 - For wetlands obtain any available delineation;
 - Containment measures in place (e.g., levees, concrete lining, etc.)
 - Drainage patterns; and
 - Evapotranspiration rates.
- Description of the chemistry of the natural surface water and sediments. This includes determining:
 - pH;
 - total dissolved solids;
 - total suspended solids;
 - biological oxygen demand;

- alkalinity;
 - conductivity;
 - dissolved oxygen profiles;
 - nutrients (NH_3 , NO_3 / NO_2 , PO_4^{-3});
 - chemical oxygen demand;
 - total organic carbon; and
 - concentrations of the site-specific contaminants of concern.
- Description of sediment characteristics including:
 - Deposition area;
 - Thickness profile; and
 - Physical parameters (e.g., grain size, density, ion exchange capacity, etc.).

4. Air

Respondent shall provide information characterizing the climate in the vicinity of the facility. Such information shall include:

- A description of the following parameters:
 - Annual and monthly rainfall averages;
 - Monthly temperature averages and extremes;
 - Wind speed and direction;
 - Relative humidity/dew point;
 - Atmospheric pressure;
 - Evaporation data;
 - Development of inversions; and

- Climate extremes that have been known to occur in the vicinity of the facility, including frequency of occurrence.
- A description of topographic and man-made features that affect air flow and emission patterns, including:
 - Ridges, hills, or mountain areas;
 - Canyons or valleys;
 - Surface water bodies (e.g., rivers, lakes, etc.);
 - Wind breaks and forests; and
 - Buildings.

C. Source Characterization

Respondent shall collect analytical data to characterize the wastes and the areas where wastes have been placed, collected or removed including: type; quantity; physical form; disposition (containment or nature of disposal); and any facility characteristics that may affect or have affected a release (e.g., facility security, engineered barriers). This shall include quantification of the following specific characteristics, at each source area:

1. Unit/Disposal Area/Area of Concern Characteristics:

- Location of unit/disposal area;
- Type of unit/disposal area;
- Design features;
- Operating practices (past and present) including the history of releases;
- Period of operation;
- Age of unit/disposal area;
- General physical conditions; and
- Method used to close or remediate the unit/disposal area.

2. Waste Characteristics:

- Type of waste placed in the unit;
 - Hazardous classification (e.g., flammable, reactive, corrosive, oxidizing or reducing agent);
 - Quantity; and
 - Chemical composition.
- Physical and chemical characteristics;
 - Physical form (solid, liquid, gas);
 - Physical description (e.g., powder, oily sludge);
 - Temperature;
 - pH;
 - General chemical class (e.g., acid, base, solvent);
 - Molecular weight;
 - Density;
 - Boiling point;
 - Viscosity;
 - Solubility in water;
 - Cohesiveness of the waste;
 - Vapor pressure; and
 - Flash point.
- Migration and dispersal characteristics of the waste;
 - Sorption;

- Biodegradability, bioconcentration, biotransformation;
- Photodegradation rates;
- Hydrolysis rates; and
- Expected chemical transformations.

Respondent shall document the procedures used in making the above determinations.

D. Contamination Characterization

Respondent shall collect analytical data on environmental media, including ground water, soils, surface water, sediment, and air likely to be affected by releases from the facility. This data shall be sufficient to define the extent, origin, direction, and rate of movement of contaminant plumes. Data shall include:

- time and location of sampling;
- media sampled;
- concentrations found;
- conditions during sampling; and
- the identity of the individuals performing the sampling and analysis.

Respondent shall address the following types of contamination at the facility:

1. Groundwater Contamination

Respondent shall conduct a groundwater investigation to characterize any plumes of contamination at the facility. This investigation shall, provide the following information:

- A description of the horizontal and vertical extent of any immiscible or dissolved plume(s) originating from the facility;
- The horizontal and vertical direction of contaminant movement;

- The velocity of contaminant movement;
- The horizontal and vertical concentration profiles of 40 C.F.R. Part 264 Appendix IX constituents in the plume(s);
- An evaluation of factors influencing the plume movement; and
- An extrapolation of future contaminant movement.

Respondent shall document the procedures used in making the above determinations (e.g., well design, well construction, geophysics, modeling, etc.).

2. Soil Contamination

Respondent shall conduct an investigation to characterize the contamination of the soil and rock units above the water table in the vicinity of the contaminant release. The investigation shall include the following information:

- A description of the vertical and horizontal extent of contamination;
- A description of contaminant and soil chemical properties within the contaminant source area and plume. This includes contaminant solubility, speciation, adsorption, leachability, exchange capacity, biodegradability, hydrolysis, photolysis, oxidation and other factors that might affect contaminant migration and transformation;
- Site-specific contaminant concentrations;
- Velocity and direction of contaminant movement; and
- An extrapolation of future contaminant movement.

Respondent shall document the procedures used in making the above determinations.

3. Surface Water and Sediment Contamination

Respondent shall conduct a surface water and sediment investigation to characterize contamination in surface water bodies resulting from contaminant releases at the facility. Respondent is also required to characterize contamination from storm water runoff. The investigation shall include the following information:

- A description of the horizontal and vertical extent of any immiscible or dissolved plume(s) originating from the facility, and the extent of contamination in underlying sediments;
- The horizontal and vertical direction of contaminant movement;
- The contaminant velocity;
- An evaluation of the physical, biological, and chemical factors influencing contaminant movement;
- An extrapolation of future contaminant movement; and
- A description of the chemical and physical properties of the contaminated surface waters and sediments. This includes determining the pH, total dissolved solids, specific contaminant concentrations, etc.

Respondent shall document the procedures used in making the above determinations.

4. Air Contamination

Respondent shall conduct an investigation to characterize the particulate and gaseous contaminants released into the atmosphere. This investigation shall provide the following information:

- A description of the horizontal and vertical direction and velocity of contaminant movement;
- The rate and amount of the release; and
- The chemical and physical composition of the contaminants(s) released, including horizontal and vertical concentration profiles.

Respondent shall document the procedures used in making the above determinations.

E. Potential Receptor Identification

Respondent shall collect data describing the human populations and environmental systems that currently or potentially are at risk of contaminant exposure from the facility. Chemical analysis of biological samples may be needed. Data on observable effects in ecosystems may also be required by U.S. EPA. The following characteristics shall be identified:

1. Local uses and possible future uses of groundwater:

- Type of use (e.g., drinking water source: municipal or residential, agricultural, domestic/non-potable, public and industrial) and
- Location of groundwater users including wells and discharge areas.

2. Local uses and possible future uses of surface waters characterized in the "Environmental Setting" or "Contamination Characterization" Sections above:

- Domestic and municipal (e.g., potable and lawn/gardening watering);
- Recreational (e.g., swimming, fishing);
- Agricultural;
- Industrial; and
- Environmental (e.g., fish and wildlife propagation).

3. Authorized or unauthorized human use of or access to the facility and adjacent lands, including but not limited to:

- Recreation;

- Hunting;
- Residential;
- Commercial;
- Zoning; and
- Relationship between population locations and prevailing wind direction.

4. A demographic profile of the people who use or have access (authorized or unauthorized) to the facility and adjacent land, including, but not limited to: age; sex; sensitive subgroups; and environmental justice concerns.

5. A description of the ecological characteristics of the facility and adjacent areas, including habitat and species present and expected to be present. Data required for this may include the following:

- Chemical sampling in potentially exposed habitats and reference sites.
- Toxicity testing.
- Tissue analyses.
- Biological community assessment.
- Habitat assessment of aquatic and terrestrial habitats on or potentially affected by the facility.
- Revised assessment of ecological impacts on receptors. Impacts should include those occurring at individual level (e.g., mortality, growth and reproductive impairments) and those occurring at higher levels of biological organization (i.e., at population, community, and ecosystem levels).

6. A description of the biota in surface water bodies on, adjacent to, or affected by the facility.

7. A description of any State and Federal endangered or threatened species (both proposed and listed) near the Facility.

Section IV: Investigation Results and Analysis

Respondent shall prepare an analysis and summary of all facility investigations and their results. The investigation data should be sufficient in quality (e.g., quality assurance procedures have been followed) and quantity to describe the nature and extent of contamination, potential threat to human health and/or the environment, and to support the Corrective Measures Study and/or IMs.

A. Data Analysis

Respondent shall analyze all facility investigation data outlined in Section III and prepare a report on the type and extent of contamination at the facility which has not been eliminated from further investigation by the screening methods used, including sources and migration pathways. The report shall describe the extent of contamination (qualitative/quantitative) in relation to background levels indicative for the area as well as in relation to applicable screening levels.

B. Media Cleanup Standards

Respondent shall provide information as required to support U.S. EPA's selection/development for media cleanup standards (MCSs) of any releases that may have adverse effects on human health and the environment due to migration of waste constituents. MCSs are to contain such terms and provisions as necessary to protect human health and the environment, including, the provisions stated below.

1. Groundwater Cleanup Standards

Respondent shall provide information to support U.S. EPA's selection/development of groundwater cleanup standards for all of the 40 C.F.R. Part 264 Appendix IX constituents found in the groundwater during the Facility Investigation (Section III). The groundwater cleanup standards shall consist of:

- For any constituents for which an MCL has been promulgated under the Safe Drinking Water Act, the MCL value;
- Background concentration of the constituent in the ground water; or

- An alternate standard [e.g., an alternate concentration limit (ACL) for a regulated unit] to be approved by U.S. EPA.

2. Soil Cleanup Standards

Respondent shall provide information to support U.S. EPA's selection/development of soil cleanup standards. U.S. EPA may require the following information:

- The volume and physical and chemical characteristics of the wastes in the unit;
- The effectiveness and reliability of containing, confining, and collecting systems and structures in preventing contaminant migration;
- The hydrologic characteristics of the unit and the surrounding area, including the topography of the land around the unit;
- The patterns of precipitation in the region;
- The existing quality of surface soils, including other sources of contamination and their cumulative impacts on surface soils;
- The potential for contaminant migration and impact to the underlying groundwater;
- The patterns of land use in the region;
- The potential for health risks caused by human exposure to waste constituents; and
- The potential for damage to domestic animals, wildlife, food chains, crops, vegetation, and physical structures caused by exposure to waste constituents.

3. Surface Water and Sediment Cleanup Standards

Respondent shall provide information to support U.S. EPA's selection/development of surface water and sediment cleanup standards. U.S. EPA may require the following information:

- The volume and physical and chemical characteristics of the wastes in the unit;
- The effectiveness and reliability of containing, confining, and collecting systems and structures in preventing contaminant migration;
- The hydrologic characteristics of the unit and the surrounding area, including the topography of the land around the unit;
- The patterns of precipitation in the region;
- The quantity, quality, and direction of groundwater flow;
- The proximity of the unit to surface waters;
- The current and potential uses of nearby surface waters and any water quality standards established for those surface waters;
- The existing quality of surface waters, including other sources of contamination and their cumulative impacts on surface waters;
- The potential for damage to domestic animals, wildlife, food chains, crops, vegetation and physical structures caused by exposure to waste constituents;
- The patterns of land use in the region; and
- The potential for health risks caused by human exposure to waste constituents.

4. Air Cleanup Standards

Respondent shall provide information to support U.S. EPA's selection/development of air cleanup standards. U.S. EPA may require the following information:

- The volume and physical and chemical characteristics of the wastes in the unit, including its potential for the emission and dispersal of gases, aerosols and particulates;

- The effectiveness and reliability of systems and structures to reduce or prevent emissions of hazardous constituents to the air;
- The operating characteristics of the unit;
- The atmospheric, meteorological, and topographic characteristics of the unit and the surrounding area;
- The existing quality of the air, including other sources of contamination and their cumulative impact on the air;
- The potential for health risks caused by human exposure to waste constituents; and
- The potential for damage to domestic animals, wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents.

5. Other Relevant Cleanup Standards

Respondent shall identify all relevant and applicable standards for the protection of human health and the environment (e.g., National Ambient Air Quality Standards, Ohio Water Quality Standards, water quality criteria, health advisories, proposed MCL's, etc.).

C. Analysis of Risk

Respondent may determine as necessary an analysis of risk at the facility. This analysis would include ecological as well as human health risk and shall be consistent with applicable guidance provided in **References**. Risk may be evaluated at several milestones within the process, as developed in the U.S. EPA-approved RFI Workplan.

All activities in conducting corrective action pursuant to this Order will allow for risk screening steps to be conducted with the data available at the risk assessment phase as well as within the RFI and CMS as appropriate. Generally, a screening risk assessment would be conducted during the RFI with additional, more detailed analysis, including appropriate cumulative risk,

occurring as more data becomes available. The highest level of risk analysis may occur later in the CMS stage.

Section V: Progress Reports

Respondent will, at a minimum, provide the U.S. EPA with signed monthly progress reports. These reports are required to contain the following information, but U.S. EPA requirements are not limited to this list:

1. A description and estimate of the percentage of the RFI completed;
2. Summaries of *all* findings in the reporting period, including results of any sampling and analysis;
3. Summaries of *all* changes made in the RFI during the reporting period;
4. Summaries of *all* contacts with representatives of the local community, public interest groups or State government during the reporting period;
5. Summaries of *all* contacts made regarding access to off-site property;
6. Summaries of *all* problems encountered during the reporting period;
7. Actions being taken to rectify problems;
8. Changes in relevant personnel during the reporting period;
9. Projected work for the next reporting period; and
10. Copies of daily reports, inspection reports, laboratory/monitoring data, etc.

Section VI: Proposed Schedule

Respondent will provide U.S. EPA with RFI submittals according to the following schedule:

Facility Submission	Due Date
Description of Current Conditions (Section I)	30 days after the effective date of the Order
RFI Workplan (Section II)	90 days after the effective date of the Order
Draft RFI Report (Sections III and IV)	As scheduled in the approved RFI Workplan
Final RFI Report	45 days after receipt of comments on the Draft RFI Report
Progress Reports on Sections I through IV	Monthly

Corrective Measures Study
Scope of Work

Corrective Measures Study

Scope of Work

Purpose

The purpose of the Corrective Measures Study (CMS) portion of the RCRA corrective action process is to identify and evaluate potential remedial alternatives for the releases that have been identified at and/or from the Facility.

Scope

A Corrective Measures Study Report is, unless otherwise specified by U.S. EPA, a required element of the CMS. The CMS consists of the following components:

Section I: Corrective Measures Study Report

- A. Introduction/Purpose
- B. Description of Current Conditions
- C. Media Cleanup Standards
- D. Identification, Screening and Development of Corrective Measure Alternatives
- E. Evaluation of A Final Corrective Measure Alternative
- F. Recommendation by Respondent for a Final Corrective Measure Alternative
- G. Public Involvement Plan

Section II: Progress Reports

Section III: Proposed Schedule

Section I: Corrective Measures Study Report

The CMS Report shall include the following elements:

A. Introduction/Purpose

Respondent shall describe the purpose of the document and provide a summary description of the project.

B. Description of Current Conditions

Respondent shall include a brief summary/discussion of any new information that has been discovered since the RFI current conditions report was provided. This discussion should concentrate on those issues which could significantly affect the evaluation and selection of the corrective measures alternative(s).

C. Media Cleanup Standards

Respondent may propose media cleanup standards. The standards must be based on promulgated Federal and State standards, risk derived standards, all data and information gathered during the corrective action process (e.g., from interim measures, RCRA Facility Investigation, etc.), and/or other applicable guidance documents. If no other guidance exists for a given contaminant and media, Respondent shall propose and justify a media cleanup standard.

D. Identification, Screening, and Development of Corrective Measure Alternatives

1. Identification: List and briefly describe potentially applicable technologies for each affected media that may be used to achieve the corrective action objectives. Respondent should consider including a table that summarizes the available technologies. Depending on the site-specific situation, U.S. EPA may require Respondent to consider additional technologies.

Respondent should consider innovative treatment technologies, especially in situations where there are a limited number of applicable corrective measure technologies. Innovative technologies are defined as those technologies utilized for remediation other than incineration, solidification/stabilization, and pumping with conventional treatment for contaminated groundwater.

Innovative treatment technologies may require extra effort to gather information, to analyze options, and to adapt the technology to the site-specific situation. Treatability studies and on-site pilot scale studies may be necessary for evaluating innovative treatment technologies.

2. Screening: When Respondent is required to, or chooses to, evaluate a number of corrective measures technologies, Respondent will evaluate the technology limitations to show why certain corrective measures technologies may prove unfeasible to implement given existing waste and site-specific conditions.

Likewise, if only one corrective measure alternative is being analyzed, Respondent must indicate any technological limitations given waste and site-specific conditions at the facility for which it is being considered. Respondent should consider including a table that summarizes these findings.

3. Corrective Measure Development: As required by U.S. EPA, Respondent shall assemble the technologies that pass the screening step into specific alternatives that have potential to meet the corrective action objectives for each media. Options for addressing less complex sites could be relatively straight-forward and may only require evaluation of a single or limited number of alternatives.

Each alternative may consist of an individual technology or a combination of technologies used in sequence (i.e., treatment train). Depending on the site-specific situation, different alternatives may be considered for separate areas of the facility. List and briefly describe each corrective measure alternative.

E. Evaluation of a Final Corrective Measure Alternative

For each remedy which warrants a more detailed evaluation, including those situations when only one remedy is being proposed, Respondent shall provide detailed documentation of how the potential remedy will comply with each of the standards listed below. These standards reflect the major technical components of remedies including cleanup of releases, source control and management of wastes that are generated by remedial activities. The specific standards are provided below.

1. Protect human health and the environment.

2. Attain media cleanup standards set by the U.S. EPA.
3. Control the source of releases so as to reduce or eliminate, to the extent practicable, further releases that may pose a threat to human health and the environment.
4. Comply with any applicable standards for management of wastes.
5. Other Factors.

In evaluating the selected alternative or alternatives Respondent shall prepare and submit information that documents that the specific remedy will meet the standards listed above. The following guidance should be used in completing this evaluation. This guidance provides examples of the types of information that would be supportive; U.S. EPA may require additional information.

1. Protect Human Health and the Environment

Corrective action remedies must be protective of human health and the environment. Remedies may include those measures that are needed to be protective, but are not directly related to media cleanup, source control, or management of wastes. An example would be a requirement to provide alternative drinking water supplies in order to prevent exposures to releases from an aquifer used for drinking water purposes. Another example would be a requirement for the construction of barriers or for other controls to prevent harm arising from direct contact with waste management units. Therefore, Respondent shall include a discussion on what types of short term remedies are appropriate for the particular facility in order to meet this standard. This information should be provided in addition to a discussion of how the other corrective measure alternatives meet this standard.

2. Attain Media Cleanup Standards Set by U.S. EPA

Remedies will be required to attain media cleanup standards set by U.S. EPA which may be derived from existing State or Federal regulations (e.g. groundwater standards) or other standards. The media cleanup standards for a remedy will often play a large role in determining the extent of and technical approaches to the remedy. In some cases, certain technical aspects

of the remedy, such as the practical capabilities of remedial technologies, may influence to some degree the media cleanup standards that are established.

As part of the necessary information for satisfying this requirement, Respondent shall address whether the potential remedy will achieve the preliminary remediation objective as identified by U.S. EPA as well as other, alternative remediation objectives that may be proposed by Respondent. Respondent shall also include an estimate of the time frame necessary for each alternative to meet these standards.

3. Control the Sources of Releases

A critical objective of any remedy must be to stop further environmental degradation by controlling or eliminating further releases that may pose a threat to human health and the environment. Unless source control measures are taken, efforts to clean up releases may be ineffective or, at best, will essentially involve a perpetual cleanup. Therefore, an effective source control program is essential to ensure the long-term effectiveness and protectiveness of the corrective action program.

The source control standard is not intended to mandate a specific remedy or class of remedies. Instead, Respondent is encouraged to examine a wide range of options. This standard should not be interpreted to preclude the equal consideration of using other protective remedies to control the source, such as partial waste removal, capping, slurry walls, in-situ treatment/stabilization and consolidation.

As part of the CMS Report, Respondent shall address the issue of whether source control measures are necessary, and if so, the type of actions that would be appropriate. Any source control measure proposed should include a discussion on how well the method is anticipated to work given the particular situation at the facility and the known track record of the specific technology.

4. Comply With Any Applicable Standards for Management of Wastes.

Respondent shall include a discussion of how the specific waste management activities will be conducted in compliance with all applicable State or Federal regulations (e.g., closure requirements, land disposal restrictions).

5. Other Factors

There are five general factors that will be considered as appropriate by U.S. EPA in selecting/approving a remedy that meets the four standards listed above. These factors represent a combination of technical measures and management controls for addressing the environmental problems at the facility. The five general decision factors include:

- a. Long-term reliability and effectiveness;
- b. Reduction in the toxicity, mobility or volume of wastes;
- c. Short-term effectiveness;
- d. Implementability; and
- e. Cost.

U.S. EPA may request Respondent to provide additional information to support the use of these factors in the evaluation of viable remedial alternatives. Examples of the types of information that may be requested are provided below:

a. Long-term Reliability and Effectiveness

Demonstrated and expected reliability is a way of assessing the risk and effect of failure. Respondent may consider whether the technology or a combination of technologies have been used effectively under analogous site conditions, whether failure of any one technology in the alternative would have an immediate impact on receptors, and whether the alternative would have the flexibility to deal with uncontrollable changes at the site (e.g., heavy rain storms, flooding, earthquakes, etc.).

Most corrective measure technologies, with the exception of destruction, deteriorate with time. Often, deterioration can be slowed through proper system operation and maintenance, but the technology eventually may require replacement. Each corrective measure alternative should be evaluated in terms of the projected useful life of the overall alternative and of its component technologies. Useful life is defined as the length of time the level of effectiveness can be maintained.

b. Reduction in the Toxicity, Mobility or Volume of Wastes

As a general goal, remedies will be preferred that employ techniques, such as treatment technologies, that are capable of eliminating or substantially reducing the inherent potential for the wastes in SWMUs (and/or contaminated media at the facility) to cause future environmental releases or other risks to human health and the environment. There may be some situations where achieving substantial reductions in toxicity, mobility or volume may not be practical or even desirable. Examples might include large, municipal-type landfills, or wastes such as unexploded munitions that would be extremely dangerous to handle, and for which the short-term risks of treatment outweigh potential long-term benefits.

Estimates of how much the corrective measures alternatives will reduce the waste toxicity, volume, and/or mobility may be helpful in applying this factor. This may be done through a comparison of initial site conditions to expected post-corrective measure conditions.

c. Short-term Effectiveness

Short-term effectiveness may be particularly relevant when remedial activities will be conducted in densely populated areas, or where waste characteristics are such that risks to workers or to the environment are high and special protective measures are needed. Possible factors to consider include fire, explosion, exposure to

hazardous substances and potential threats associated with treatment, excavation, transportation, and re-disposal or containment of waste material.

d. Implementability

Implementability will often be a determining variable in shaping remedies. Some technologies will require State or local approvals prior to construction, which may increase the time necessary to implement the remedy. In some cases, State or local restrictions or concerns may necessitate eliminating or deferring certain technologies or remedial approaches from consideration in remedy selection. Information to consider when assessing implementability may include:

1. The administrative activities needed to implement the corrective measure alternative (e.g., permits, rights of way, off-site approvals, etc.) and the length of time these activities will take;
2. The constructibility, time for implementation, and time for beneficial results;
3. The availability of adequate off-site treatment, storage capacity, disposal services, needed technical services and materials; and
4. The availability of prospective technologies for each corrective measure alternative.

e. Cost

The relative cost of a remedy may be an appropriate consideration, especially in those situations where several different technical alternatives to remediation will offer equivalent protection of human health and the environment, but may vary widely in cost. However, in those situations where only one remedy is being

hazardous substances and potential threats associated with treatment, excavation, transportation, and re-disposal or containment of waste material.

d. Implementability

Implementability will often be a determining variable in shaping remedies. Some technologies will require State or local approvals prior to construction, which may increase the time necessary to implement the remedy. In some cases, State or local restrictions or concerns may necessitate eliminating or deferring certain technologies or remedial approaches from consideration in remedy selection. Information to consider when assessing implementability may include:

1. The administrative activities needed to implement the corrective measure alternative (e.g., permits, rights of way, off-site approvals, etc.) and the length of time these activities will take;
2. The constructibility, time for implementation, and time for beneficial results;
3. The availability of adequate off-site treatment, storage capacity, disposal services, needed technical services and materials; and
4. The availability of prospective technologies for each corrective measure alternative.

e. Cost

The relative cost of a remedy may be an appropriate consideration, especially in those situations where several different technical alternatives to remediation will offer equivalent protection of human health and the environment, but may vary widely in cost. However, in those situations where only one remedy is being

proposed, the issue of cost would not need to be considered. Cost estimates could include costs for: engineering, site preparation, construction, materials, labor, sampling/analysis, waste management/disposal, permitting, health and safety measures, training, operation and maintenance, etc.

F. Recommendation by Respondent for a Final Corrective Measure Alternative

In the CMS Report, Respondent may recommend a preferred remedial alternative for consideration by U.S. EPA. Such a recommendation should include a description and supporting rationale for the proposed remedy, consistent with the remedial standards and the decision factors discussed above. Such a recommendation is not required and the U.S. EPA still retains the role of remedy selection.

G. Public Involvement Plan

After the CMS has been performed by Respondent and the U.S. EPA has selected a preferred alternative for proposal in the Statement of Basis, it is the agency's policy to request public comment on the Administrative Record and the proposed corrective measure(s). Changes to the proposed corrective measure(s) may be made after consideration of public comment. U.S. EPA may also require that Respondent perform additional corrective measures studies. If the public is interested, a public meeting may be held. After consideration of the public's comments on the proposed corrective measure, the agency develops the Final Decision and Response to Comments to document the selected corrective measure, the agency's justification for such selection, and the response to the public's comment. Additional public involvement activities may be necessary, based on site-specific circumstances.

Section II: Progress Reports

Respondent will, at a minimum, provide U.S. EPA with signed monthly progress reports. These reports are required to contain the following information, but U.S. EPA requirements are not limited to this list:

1. A description and estimate of the percentage of the CMS completed;

2. Summaries of *all* findings in the reporting period, including results of any pilot studies;
3. Summaries of *all* changes made in the CMS during the reporting period;
4. Summaries of *all* contacts with representative of the local community, public interest groups or State government during the reporting period;
5. Summaries of *all* contacts made regarding access to off-site property;
6. Summaries of *all* problems encountered during the reporting period;
7. Actions being taken to rectify problems;
8. Changes in relevant personnel during the reporting period;
9. Projected work for the next reporting period; and
10. Copies of daily reports, inspection reports, laboratory/monitoring data, etc.

Section III: Proposed Schedule

Respondent will provide the U.S. EPA with CMS submittals according to the following schedule:

Facility Submission	Due Date
Draft CMS Report (Section I)	Within 90 days of U.S. EPA approval of the RFI Report
Final CMS Report (Section I)	45 days after Public and U.S. EPA Comments on the Draft Final CMS
Progress Reports on Sections I	Monthly

ATTACHMENT II

Corrective Measures Implementation
Scope of Work

ATTACHMENT II
Corrective Measures Implementation
Scope of Work

PURPOSE

The purpose of the Corrective Measures Implementation (CMI) program is to design, construct, operate, maintain and monitor the performance of the Corrective Measures selected by U.S. EPA and other measures/additional work determined necessary by U.S. EPA pursuant to this Order such that the performance standards are achieved and maintained. Respondent shall furnish all personnel, materials and services necessary for the implementation of the Corrective Measures.

SCOPE

The CMI program shall consist of four tasks:

Section I: Corrective Measures Implementation Workplan

- A. Program Management Plan
- B. Public Involvement Plan
- C. Health and Safety Plan
- D. Quality Assurance Project Plan
- E. Sampling and Analysis Plan
- F. Surveys

Section II: Corrective Measures Design

- A. Preliminary Design
- B. Prefinal and Final Designs
- C. Operation and Maintenance Plan
- D. Cost Estimate
- E. Project Schedule
- F. Construction Quality Assurance Objectives

Section III: Corrective Measures Construction

- A. Responsibility and Authority
- B. Construction Quality Assurance Personnel Qualifications
- C. Inspection Activities
- D. Sampling Requirements
- E. Documentation

Section IV: Other Reports and Submissions

- A. Progress
- B. Construction Completion Report
- C. Attainment of Groundwater Performance Standards Report
- D. Completion of Work Report
- E. Institutional Controls
- F. Submittal Summary

Section I: Corrective Measures Implementation (CMI) Workplan

Respondent shall prepare and submit a CMI Workplan which includes the development and implementation of several plans, which shall be prepared concurrently. Respondent shall submit a draft CMI Workplan within 60 days of U.S. EPA's decision on the corrective measure(s) and submit a final CMI Workplan that incorporates U.S. EPA comments on the draft CMI Workplan according to the schedule identified in the Submittal Summary, Section IV. The CMI Workplan includes the following:

A. Program Management Plan

Respondent shall prepare and submit a Program Management Plan (PMP) which includes a discussion of the technical approach, engineering designs and plans, schedules, and personnel needed for performing the design, construction, operation, maintenance and monitoring of Corrective Measures for U.S. EPA review and approval. The PMP shall document the responsibility and authority of all organizations and key personnel involved with the implementation. The PMP shall also include a description of qualifications of key personnel directing the Corrective Measure Design and Implementation, including contractor personnel.

B. Public Involvement Plan

The existing Public Involvement Plan (PIP) shall be revised to describe the community relations program to be implemented by Respondent during the design and construction subject to the approval of U.S. EPA. Specific activities which must be conducted include the revision of the PIP to reflect knowledge of community concerns and involvement during design and construction and the preparation of a fact sheet at the completion of the engineering design. At the request of U.S. EPA, Respondent shall participate in the preparation of information disseminated to the public and in providing information for public meetings that may be held or sponsored by the U.S. EPA.

C. Health and Safety Plan

Respondent shall submit a Health and Safety Plan (HSP) to U.S. EPA for review although it does not require approval by U.S. EPA. The HSP shall be designed to protect on-site personnel and area residents from physical, chemical and other hazards posed by the Corrective Measures, including pre-design studies.

1. Major elements of the HSP shall include:

- Facility description including availability of resources such as roads, water supply, electricity, and telephone service;
- Description of the known hazards and evaluation of the risks associated with each activity conducted;
- A list of key personnel and alternates responsible for site safety, response operations, and protection of human health;
- Delineation of work area;
- Description of protective clothing or other protective items to be worn by personnel in work area;
- Procedures to control site access;
- Description of decontamination procedures for personnel and equipment;
- Site emergency procedures;
- Emergency medical care needed for injuries and toxicological problems;
- Description of requirements for an environmental surveillance program;
- Routine and special training required for response personnel; and
- Procedures for protecting workers from weather-related problems.

2. The Facility HSP shall be consistent with:

- NIOSH Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities (1985);
- EPA Order 1440.1 - Respiratory Protection;
- EPA Order 1440.3 - Health and Safety Requirements for Employees engaged in Field Activities;
- Facility Contingency Plan;

- EPA Standard Operating Safety Guide (1984);
- OSHA regulations particularly in 29 CFR 1910 and 1926;
- State and local regulations; and
- Other applicable EPA guidance as provided.

D. Quality Assurance Project Plan

Respondent shall prepare and submit a Quality Assurance Project Plan (QAPP) to document all monitoring procedures, sampling, field measurements, and sample analyses to be performed during the Corrective Measures, so as to ensure that all information, data and resulting decisions are technically sound, statistically valid and properly documented. The QAPP shall be prepared in accordance with Attachment V. At the request of U.S. EPA, Respondent shall participate in a pre-QAPP meeting with the U.S. EPA prior to preparation of any QAPP.

A performance audit may be conducted by U.S. EPA on the laboratories selected by Respondent.

E. Sampling and Analysis Plan

Respondent shall develop a Sampling and Analysis Plan (SAP) for the predesign field activities and any monitoring programs required by this Order. Respondent shall submit the SAP addressing predesign field activities with the draft CMI Work Plan and shall propose a schedule for the submittal of any additional sampling plans. The SAP shall include, at a minimum:

1. A description of the proposed field activities;
2. The proposed locations of soil borings, ground water monitoring wells and surface water monitoring points;
3. A description of how the SAP is expected to meet the requirements of the final remedy;
4. A description of the planned operation and maintenance (O&M) activities, including the anticipated frequency of each O&M task;
5. A flow chart and schedule of work to be performed during the CMI.

F. Surveys

Respondent shall submit surveys to delineate current Facility boundaries and to update water well use adjacent to the Facility.

Section II: Corrective Measures Design

Respondent shall prepare final construction plans and specifications to implement the Corrective Measures at the facility which have been selected by U.S. EPA. The final product of the Corrective Measures Design shall be a technical package (or packages) that contain and address all elements necessary to accomplish the Corrective Measures. This includes all design support activities, initial permitting and access requirements, operation and maintenance, and institutional controls, as well as technical elements.

A. Preliminary Design

Respondent shall submit for U.S. EPA review and approval a Preliminary Design when the design effort is approximately 50% complete. The Preliminary Design submittal shall include or discuss, at a minimum, the following:

1. Design strategy and basis, including compliance with all applicable or relevant environmental and public health standards and minimization of environmental and public impacts;
2. Technical factors of importance, including use of currently accepted environmental control measures and technology, design constructability, and use of currently acceptable construction practices techniques;
3. A summary of activities performed and data generated during Corrective Measures Design or Predesign, including results and interpretations of data and studies;
4. Design assumptions and parameters, including design restrictions and process performance criteria;
5. Real estate, easement and permit requirements;
6. Preliminary construction schedule, including contracting strategy;

7. Discussion of the possible sources of error and references to possible operation and maintenance problems;
8. Detailed drawings of the proposed designs, including qualitative and quantitative flow sheets;
9. Tables listing equipment and specifications;
10. Tables giving material and energy balances; and
11. Sample calculations and derivation of equations essential to understanding the report.

B. Prefinal and Final Designs

Respondent shall submit for U.S. EPA review and approval the Prefinal Design when the design effort is 95% complete and shall submit the Final Design when the design effort is 100% complete. The Prefinal Design shall fully address all U.S. EPA's comments on the Preliminary Design. After receipt of U.S. EPA comments on the Prefinal Design, Respondent shall execute the required revisions and submit the Final Design with reproducible drawings and specifications suitable for bid advertisement. The Final Design consists of the Final Design Plans and Specifications (100% complete), Final Construction Cost Estimate, Final Operation and Maintenance Plan, Construction Quality Assurance Objectives, Final Project Schedule and Final Health and Safety Plan specifications.

The U.S. EPA may require additional work, including but not limited to studies, to supplement the available technical data. Respondent shall furnish all equipment and personnel necessary to complete any additional work needed. Draft and final reports shall be prepared and present all data obtained during the additional studies, a summary of the results, and conclusions.

C. Operation and Maintenance Plan

Respondent shall prepare an Operation and Maintenance (O&M) Plan to cover both implementation and long term maintenance of the Corrective Measures. A draft O&M Plan shall be submitted for U.S. EPA review and comment concurrently with the Prefinal Design and the final O&M Plan shall be submitted for U.S. EPA review and approval with the Final Design. The plan shall include the following elements:

1. Description of normal O&M:
 - a. Description of tasks for operation;
 - b. Description of tasks for maintenance;
 - c. Description of prescribed treatment or operation conditions; and
 - d. Schedule showing frequency of each O&M task.
2. Description of potential operating problems:
 - a. Description and analysis of potential operation problems;
 - b. Sources of information regarding problems; and
 - c. Common and/or anticipated remedies.
3. Description of routine monitoring and laboratory testing:
 - a. Description of monitoring tasks;
 - b. Description of required laboratory tasks and their interpretation;
 - c. Required data collection, Quality Assurance Project Plan (QAPP);
 - d. Schedule of monitoring frequency; and
 - e. Description of triggering mechanisms for ground water/surface water monitoring results.
4. Description of alternate O&M:
 - a. Should system fail, alternate procedures to prevent release or threatened releases of hazardous substances, pollutants or contaminants which may endanger public health and the environment or exceed cleanup standards; and
 - b. Analysis of vulnerability and additional resource requirements should a failure occur.

5. Corrective steps:

- a. Description of corrective steps to be implemented in the event that cleanup or performance standards are not met; and
- b. Schedule for implementing these corrective steps.

6. Safety plan:

- a. Description of precautions, of necessary equipment, etc., for site personnel; and
- b. Safety tasks required in event of systems failure.

7. Description of equipment:

- a. Equipment identification;
- b. Installation of monitoring components;
- c. Maintenance of site equipment; and
- d. Replacement schedule for equipment and installed components.

8. Records and reporting mechanisms required:

- a. Daily operating logs;
- b. Laboratory records;
- c. Records for operating costs;
- d. Mechanism for reporting emergencies;
- e. Personnel and maintenance records; and
- f. Monthly/annual reports to State agencies.

D. Cost Estimate

Respondent shall refine the cost estimate developed in the CMS to reflect the more detailed/accurate design plans and specifications being developed. The cost estimate shall include both capital and O&M costs. An Initial Cost Estimate shall be

submitted simultaneously with the Prefinal Design and the Final Cost Estimate with the Final Design.

E. Project Schedule

Respondent shall develop a project schedule for construction and implementation of the Corrective Measures which identifies timing for initiation and completion of all critical path tasks. The schedule to be submitted to U.S. EPA for review and approval shall provide for the completion of the Corrective Measures in a reasonable period of time. Respondent shall specifically identify dates for completion of the project and major interim milestones. An initial project schedule shall be submitted simultaneously with the Prefinal Design and a final project schedule with the Final Design.

F. Construction Quality Assurance Objectives

Respondent shall identify and document the objectives and framework for the development of a construction quality assurance program including, but not limited to the following: responsibility and authority; personnel qualifications; inspection activities; sampling requirements and documentation. Draft Construction Quality Assurance Objectives, Prefinal Design, and the Final Construction Quality Assurance Plan shall be submitted for U.S. EPA review and approval within 45 days after U.S. EPA's approval of the Final Design.

Section III: CORRECTIVE MEASURES CONSTRUCTION

Respondent shall finalize the Construction Quality Assurance Plan incorporating comments received on the draft Construction Quality Assurance Plan submitted with the Prefinal Design. Within 45 days of U.S. EPA's approval of the Final Design, Respondent shall implement a construction quality assurance (CQA) program and submit the Final CQA Plan to ensure, with a reasonable degree of certainty, that a completed Corrective Measure will meet or exceed all design criteria, plans and specifications. The CQA Plan is a facility specific document which must be approved by U.S. EPA prior to the start of the construction. At a minimum, the CQA Plan should include the elements which are summarized below. Within 120 days of U.S. EPA's approval of the CQA Plan, Respondent shall construct and implement the Corrective Measures in accordance with the approved design, schedule and CQA Plan.

Respondent shall also implement the elements of the approved O&M Plan.

A. Responsibility and Authority

Respondent shall describe fully in the CQA Plan the responsibility and authority of all organizations (i.e., technical consultants, construction firms, etc.) and key personnel involved in the construction of the corrective measures. Respondent shall also identify a CQA officer and the necessary supporting inspection staff.

B. Construction Quality Assurance Personnel Qualifications

Respondent shall set forth the qualifications of the CQA Officer and supporting inspection personnel shall be presented in the CQA plan to demonstrate that they possess the training and experience necessary to fulfill their identified responsibilities.

C. Inspection Activities

Respondent shall summarize in the CQA plan the observations and tests that will be used to monitor the construction and/or installation of the components of the Corrective Measures. The plan shall include the scope and frequency of each type of inspection. Inspections shall verify compliance with environmental requirements and include, but not be limited to air quality and emissions monitoring records, waste disposal records (e.g., RCRA transportation manifests), etc. The inspection shall also ensure compliance with all health and safety procedures. In addition to the oversight inspections, Respondent shall conduct construction inspections.

Within 30 days after Respondent makes a preliminary determination that construction is complete, Respondent shall notify U.S. EPA for the purposes of conducting an inspection. The inspection shall consist of a walk-through inspection of the entire project site. The inspection is to determine whether the project is complete and consistent with the contract documents and the U.S. EPA-approved Corrective Measures. Any outstanding construction items discovered during the inspection shall be identified and noted. Additionally, treatment equipment, if installed, shall be operationally tested by Respondent. Respondent shall certify that the equipment has performed to meet the purpose and intent of the specifications. Retesting will be completed where deficiencies are revealed. Respondent shall outline in the

inspection report the outstanding construction items, actions required to resolve items, completion date for these items and date for final inspection.

Upon completion of any outstanding construction items, Respondent shall notify U.S. EPA for the purposes of conducting a final inspection. The final inspection shall consist of a walk-through inspection of the project site. Confirmation shall be made that outstanding items have been resolved subject to EPA's approval.

D. Sampling Requirements

Respondent shall present in the CQA Plan the sampling activities, sample size, sample locations, frequency of testing, criteria for acceptance and rejection and plans for correcting problems as addressed in the project specifications.

E. Documentation

Respondent shall describe in detail in the CQA plan the reporting requirements for CQA activities. This shall include such items as daily summary reports, inspection data sheets, problem identification and corrective measures reports, design acceptance reports and final documentation. Provisions for the final storage of all records shall be presented in the CQA Plan.

Section IV: Other Reports and Submissions

Respondent shall prepare plans, specifications and reports as set forth in Sections I through III to document the design, construction, operation, maintenance and monitoring of the Corrective Measure. Other documentation shall include, but not be limited to the following:

A. Progress

Respondent shall at a minimum provide the U.S. EPA with signed monthly progress reports during the design and construction phases and semi-annual progress reports for operation and maintenance activities containing:

1. A description and estimate of the percentage of the CMI completed;
2. Summaries of all findings;

3. Summaries of all changes made in the CMI during the reporting period;
4. Summaries of all contacts with representatives of the local community, public interest groups or State government during the reporting period;
5. Summaries of all problems or potential problems encountered during the reporting period;
6. Actions being taken to rectify problems;
7. Changes in personnel during the reporting period;
8. Projected work for the next reporting period; and
9. Copies of daily reports, inspection reports, laboratory/monitoring data, etc.

B. Construction Completion Report

Within 30 days of a successful final inspection, as determined by U.S. EPA, Respondent shall submit a Construction Completion Report. In the report, a registered professional engineer and Respondent's Project Coordinator shall state that the Corrective Measures have been constructed in accordance with the design and specifications, to the best of their knowledge, and the performance standards have been attained. The written report shall include as-built drawings signed and stamped by a registered professional engineer. The report shall be certified by a Responsible Official pursuant to Section XIV of the Order. The Final O&M Plan shall be submitted concurrently with the Construction Completion Report.

C. Attainment of Ground Water Performance Standards Report

Within 30 days after Respondent concludes that the ground water performance standards have been attained, Respondent shall submit a written report and certification to U.S. EPA for review and approval. In the report, a registered professional engineer and Respondent's Project Coordinator shall state that the ground water performance standards have been attained in full satisfaction of the requirements of this Order. The report shall be certified by a Responsible Official pursuant to Section XIV of the Order.

D. Completion of Work Report

This report shall be submitted by Respondent when construction is complete, performance standards have been attained and O&M is complete. Within 30 days after Respondent concludes that all phases of the work (including O&M and monitoring) have been completed, Respondent shall schedule and conduct a precertification inspection to be attended by representatives of Respondent and U.S. EPA. After the precertification inspection and any prefinal or subsequent final inspections required by U.S. EPA, Respondent shall submit within 30 days of a successful final inspection, a written Completion of Work Report to U.S. EPA for approval. In the report, a registered professional engineer and Respondent's Project Coordinator shall state that the Corrective Measures have been completed in full satisfaction of the requirements of this Order. The written report shall include as-built drawings stamped by a registered professional engineer. The report shall be certified by a Responsible Official pursuant to Section XIV of the Order.

F. Submittal Summary

A summary of the information reporting requirements contained in the CMI Scope of Work is presented below.

SUBMITTAL	DUE DATE
Draft CMI Workplan -Project Management Plan -Public Involvement Plan -Health and Safety Plan -Pre-Design QAPP -Pre-Design SAP -Surveys	Within 60 days of U.S. EPA's decision on corrective measure(s)
Final CMI Workplan -Revisions to Draft	30 days after receipt of U.S. EPA's comments on Draft CMI Workplan

SUBMITTAL	DUE DATE
Preliminary Design (50%) -Design Criteria -Pre-Design Results -Design Assumptions/ Parameters -Preliminary Plans -Outline of Required Specifications -Preliminary Construction Schedule	In accordance with the project schedule approved in the CMI Workplan
Prefinal Design (95%) -Revisions to Preliminary Design -Final QAPP -Final SAP -Final HSP -Final Construction Schedule -Cost Estimates -Draft O&M Plan -CQA Objectives	30 days after receipt of U.S. EPA's comments on Preliminary Design
Final Design (100%) -Revisions to Prefinal Design	30 days after receipt of U.S. EPA's comments on Prefinal Design
Construction Quality Assurance Plan (CQAP)	45 days after U.S. EPA's approval of Final Design
Construct and implement corrective measure(s)	120 days after U.S. EPA's approval of CQAP
Final O&M Plan	30 days after final Construction Inspection
Construction Inspection	30 days after Construction Completion
Construction Completion Report	30 days after final Construction Inspection

SUBMITTAL	DUE DATE
O&M Progress Report	No later than one year after U.S. EPA's approval of Construction Completion Report, semi-annually thereafter
Attainment of GW Performance Standards Report	30 days after determination that GW performance standards have been attained
Completion of Work Inspection	30 days after completion of all work, including O&M
Completion of Work Report	30 days after Completion of Work Inspection

ATTACHMENT III

Quality Assurance Project Plan
Region 5 RCRA Model

Available at
<http://www.epa.gov/reg5rcra/ca/qapp.htm>

Attachment IV
References
ATTACHMENT IV
References

A. REFERENCES

The following list comprises additional guidance documents and other information which may be useful in implementing a RCRA §3008(h) Order. This list does not include every guidance document pertaining to work performed under a §3008(h) Order. Documents are organized according to the relevant section of the Order. Contacts for additional information are included at the end of this list.

"Health and Safety Requirements of Employees Employed in Field Activities," EPA Order 1440.2, July 12, 1981.

"Corrective Measures for Releases to Ground Water from SWMUs," Draft Final, EPA/530-SW-88-020, March 1985.

"Corrective Measures for Releases to Soil from SWMUs," Draft Final EPA/530-SW-88-022, March 1985.

"Technical Guidance for Corrective Measures -- Subsurface Gas," EPA/530-SW-88-023, March 1985.

"Technical Guidance for Corrective Measures--Determining Appropriate Technology and Response for Air Releases," Draft Final, EPA/530-SW-88-021, March 1985.

References

"RCRA Ground-Water Monitoring Technical Enforcement Guidance Document (TEGD)," OSWER Directive 9950.1, September 1986.

"Technical Guidance Document: Construction Quality Assurance for Hazardous Waste Land Disposal Facilities," EPA 530/SW-86/031, OSWER Directive 9472.003, October 1986.

"RCRA Facility Assessment (RFA) Guidance," EPA/530/SW-86/053, October 1986.

"Data Quality Objectives for Remedial Response Activities," EPA/540/G-87/003 & 004, OSWER Directive 9335.0-7B, March 1987.

"Alternate Concentration Limit Guidance, Part 1: ACL Policy and Information Requirements," Interim Final, OSWER Directive 9481.00-6C, July 1987.

"A Compendium of Superfund Field Operations Methods," Two Volumes, EPA/540/P-87/001a&b, OSWER Directive 9355.0-14, August 1987.

"Technology Screening Guide for Treatment of CERCLA Soils and Sludges," EPA/540/2-88/004, September 1988.

"Ground-Water Modeling: An Overview and Status Report," EPA/600/2-89/028, December 1988.

"Risk Assessment Guidance for Superfund, Volume II: Environmental Evaluation Manual," Interim Final, EPA/540/1-89/001, March 1989.

"Ecological Assessment of Hazardous Waste Sites: A Field and Laboratory Reference Document," EPA 600/3-89/013, March 1989.

"Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities," Interim Final, EPA/530/SW-89/026, April 1989.

"Handbook of Suggested Practices for the Design and Installation of Ground-Water Monitoring Wells," EPA/600/4-89/034, April 1989.

"Stabilization/Solidification for CERCLA and RCRA Wastes," EPA/625/6-89/022, May 1989.

"Interim Final RCRA Facility Investigation (RFI) Guidance," Volumes I-IV, EPA/530/SW-89-031, May 1989.

References

"Technical Guidance Document: Final Covers on Hazardous Waste Landfills and Surface Impoundments," EPA/530/SW-89/047, July 1989.

"Risk Assessment Guidance for Superfund, Volume I: Human Health Evaluation Manual (Part A)," Interim Final, EPA/540/1-89/002, December 1989

"Air/Superfund National Technical Guidance Study Series," Volumes I-IV, EPA 450/1-89-001,002,003,004 (1989 and 1990).

"Handbook on In-Situ Treatment of Hazardous Waste-Contaminated Soils," EPA/540/2-90/002, 1990.

"Basics of Pump-and-Treat Groundwater Remediation Technology," EPA/600/8-90/003, March 1990.

"Framework for Ecological Risk Assessment," EPA/630/R-92/001, February 1991.

"Human Health Evaluation Manual, Supplemental Guidance: Standard Default Exposure Factors," OSWER Directive 9285.6-03, March 25, 1991.

"Synopsis of Federal Demonstrations of Innovative Site Remediation Technologies," EPA/540/8-91/009, May 1991.

"Bibliography of Federal Reports and Publications Describing Alternative and Innovative Treatment Technologies for Corrective Action and Site Remediation," EPA/540/8-91/007, May 1991.

"Handbook: Ground Water," Volumes I and II, EPA/625/6-90/016 (a&b), September 1990 and July 1991.

"Guide for Conducting Treatability Studies under CERCLA: Aerobic Biodegradation Remedy Screening", EPA/540/2-91/013B, July 1991.

"Handbook: Stabilization Technologies for RCRA Corrective Actions," EPA/625/6-91/026, August 1991.

"Guide for Conducting Treatability Studies under CERCLA: Soil Vapor Extraction", EPA/540/2-91/019B, September 1991.

"Guide for Conducting Treatability Studies under CERCLA: Soil Washing," EPA/540/2-91/020B, September 1991.

References

- "Selected Alternative and Innovative Treatment Technologies for Corrective Action and Site Remediation," EPA/540/8-91/092, 1991.
- "Characterizing Heterogeneous Wastes: Methods and Recommendations," EPA/600/R-92/033, Feb. 1992.
- "Final Guidance for Data Useability in Risk Assessment," (Parts A & B), OSWER Directive 9285.7-09A, April 1992.
- "Literature Survey of Innovative Technologies for Hazardous Waste Site Remediation: 1987 - 1991," EPA/542/B-92/004, July 1992.
- "Handbook of RCRA Ground-Water Monitoring Constituents: Chemical and Physical Properties," EPA/530/R-92/022, September 1992.
- "Ground-Water Monitoring: Draft Technical Guidance," EPA/530-R-93-001, November 1992.
- "Statistical Training Course for Ground-Water Monitoring Data Analysis," EPA/530/R-93/003, 1992.
- "Guidance for Evaluating the Technical Impracticability of Ground-Water Restoration," OSWER Directive 9234.2-25, September 1993.
- "RCRA Corrective Action Plan," OSWER Directive 9902.3-2A, May 1994.
- "Ecological Risk Assessment Guidance for RCRA Corrective Action," U.S. EPA, Region 5, Interim Draft, October 1994.
- "Land Use in the CERCLA Remedy Selection Process," OSWER Directive 9355.7-04, May 25, 1995.
- "Standard Guide for Risk Based Corrective Action Applied to Petroleum Release Sites," ASTM E-1739-95, November 1995. (As approved by Region 5 guidance policy)
- "Conducting Risk-Based Corrective Action for Federally-Regulated UST Petroleum Releases," U.S. EPA, Region 5, December 7, 1995.
- "Sitting at the RCRA Data Quality Level Table, Update 1," U.S. EPA, Region 5, Memorandum, December 14, 1995.

References

"Soil Screening Guidance: Users Guide," OSWER Publication 9355.4-23, April 1996.

"Soil Screening Guidance: Technical Background Document," EPA/540/R-95/128, May 1996.

"Corrective Action for Releases From Solid Waste Management Units at Hazardous Waste Management Facilities," Advanced Notice of Proposed Rulemaking, 61 Fed. Reg. 19432, May 1, 1996.

"Region 9 Preliminary Remediation Goals (PRGs) 1996," U.S. EPA, Region 9, Annual Update, August 1, 1996.

"Region 5 Ecological Data Quality Levels," Final Report, August 26, 1996.

"EPA's Proposed Guidelines for Ecological Risk Assessment," 61 Fed. Reg. 47552, September 9, 1996. (Note: Final document to be released in early-1998.)

"Corrective Action Principles," U.S. EPA, Region 5, Memorandum, November 19, 1996.

"Ecological Risk Assessment Guidance for Superfund: Process for Designing and Conducting Ecological Risk Assessments," Interim Final, EPA/540/R-97/006, June 5, 1997.

"Ecological Data Quality Levels, RCRA Appendix IX Hazardous Constituents," U.S. EPA, Region 5, Draft Report, August 18, 1997.

GENERAL INFORMATION:

"OSWER Directives - System Catalog," OSWER Directive 9013.15-3D, March 1992. (Provides a list of OSWER Directives published through March 1991.)

"Technical Support Services for Superfund Site Remediation and RCRA Corrective Action" (third edition), EPA/540/8-91/091, March 1992.

"Accessing Federal Data Bases for Contaminated Site Clean-Up Technologies," EPA/540/8-91/008, May 1991.

"Memorandum on the Use of Supplemental Environmental Projects, Amendment to GM 22," James M. Strock, February 12, 1991.

References

USEFUL TELEPHONE NUMBERS:

RCRA/CERCLA/UST Hotline (800) 424-9346

EPA's Office of Research and Development publishes occasional ground water and engineering issue papers. For information contact:

ORD Publications Office, Center for Environmental Research
Information (CERI), (513) 569-7562

National Technical Information Services (NTIS)
(703) 487-4650, (800) 553-6847

ATTACHMENT V

Acknowledgment of Termination

ATTACHMENT V
Acknowledgment of Termination

ACKNOWLEDGMENT OF TERMINATION and
AGREEMENT TO RECORD PRESERVATION AND RESERVATION OF RIGHTS

1. The United States Environmental Protection Agency (U.S. EPA) agrees and acknowledges that the terms of Order RCRA- - - issued by U.S. EPA on , 19 (Order), including any additional tasks determined by U.S. EPA to have been required pursuant to the Order, but excluding Section XIII: Record Preservation, have been satisfactorily completed based upon the information presently available to U.S. EPA.
2. Respondent agrees and acknowledges that the terms of Section XIII: Record Preservation remain in effect until , 20 (date 6 years after termination of the Order).
3. Respondent agrees and acknowledges that Respondent's completion of the terms of the Order does not limit or otherwise preclude U.S. EPA from taking additional enforcement action pursuant to Section 3008(h) of the Solid Waste Disposal Act, commonly referred to as the Resource Conservation and Recovery Act of 1976 (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984, 42 U.S.C. §6928(h), or other available legal authorities, should U.S. EPA determine that such actions are warranted.
4. Respondent agrees and acknowledges that Respondent's completion of the terms of the Order does not relieve Respondent of its obligations to comply with RCRA or any other applicable local, State, or Federal laws and regulations.

IT IS SO AGREED AND ACKNOWLEDGED:

Date: _____ By: _____
(Name), (Title)
(RESPONDENT)

Date: _____ By: _____
(Name), (Title)
UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION 5
(Petitioner)

CERTIFICATE OF SERVICE

I hereby certify that on this day I filed the original and a copy of the foregoing Administrative Order, and filed the accompanying Administrative Record, with the Regional Hearing Clerk, United States Environmental Protection Agency, Region 5, 77 W. Jackson Boulevard, Chicago, IL 60604, and that I then caused true and correct copies of the filed Administrative Order, along with a copy of the applicable administrative procedures, to be promptly mailed to the following by certified mail, return receipt requested, to:

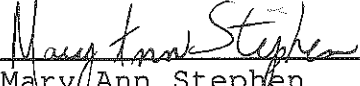
Mr. Gerald Kohlsmith, President
Henkel, Corporation, N.A.
Registered Agent for:
Henkel Surface Technologies
Division of Henkel Corporation
32100 Stephenson Highway
Madison Heights, MI 48071,

and caused copies of the Administrative Order, along with a copy of the administrative procedures, to be promptly mailed by first class mail to:

Jack Garavanta
Director, Regulatory Affairs
Henkel Surface Technologies
Division of Henkel Corporation
32100 Stephenson Highway
Madison Heights, MI 48071

Kenneth C. Gold, Esq.
Honigman Miller Schwartz and Cohn LLP
660 Woodward Avenue
2290 First National Building
Detroit, Michigan 48226.

Dated: April 10, 2002



Mary Ann Stephen
Branch Secretary (WPTD-9J)
United States Environmental
Protection Agency
77 W. Jackson Boulevard
Chicago, IL 60604

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EPA REGION 5
CHICAGO

RCRA-05- 2002-0004

1005-000-0000

notes:

- 1) the original and a copy of the order must be filed with the Regional Hearing Clerk.
- 2) on or prior to the date of filing the Order, we must file an indexed Administrative Record with the Regional Hearing Clerk.
- 3) along with the Order, a copy of the Part 24 Rules must be mailed to the parties (it need not be filed with the RHC).

notes:

- 1) the original and a copy of the order must be filed with the Regional Hearing Clerk.
- 2) on or prior to the date of filing the Order, we must file an indexed Administrative Record with the Regional Hearing Clerk.
- 3) along with the Order, a copy of the Part 24 Rules must be mailed to the parties (it need not be filed with the RHC).

Henkel Administrative Order
Relationship of findings of fact in the Order to documents
included in the Administrative Record

<u>Document Number</u>	<u>Finding Pgh &Pg.</u>	<u>Description/Author(if applicable)</u>
HST-001	C, p3	Inspection Reports and Correspondence to and from Ecology and Environment (E&E), Michigan Department of Environmental Quality (MDEQ), Oxymetal Corp, Hooker Chemical, Parker Chemical and Henkel Surface Tech.
HST-002	B,C p3 D,E,F p4	RCRA Part A Permit Files of Oxymetal Corp, Hooker, Parker Chemical and Henkel Surface Tech.
HST-003	M p9	Ecology and Environment Preliminary Assessment/Visual Site Inspection (PA/VSI) Report
HST-004	I,K,O p6-8&10	MDEQ Inspection Records and files.
HST-005	M p9	RCRA Corrective Action Prioritization Report and site scoring, authored by PRC Environmental Management Inc., (now known as Tetrattech, EMI, Inc.)
HST-006	G,H,N,R p5,9,12	Groundwater Sampling Plan produced by the Dragun Corp on behalf of Henkel Surface Technologies, authored by Jeffrey Bolin of Dragun Corp.
HST-007	G,H,N,R p5,9,12	Letter from HST-Morenci to U.S. EPA (Thomas Manning) conveying a copy of HST-006 (above).
HST-008	NONE	Copy of first set of CA725 and CA750 Environmental Indicator Determinations (CA-725 is the determination for Human Exposures under Control, CA-750 is for Migration of Contaminated Groundwater Under Control.) Authored by Tom Manning, US EPA.
HST-009	Q p11	Record of Conference Call with Mr. Jack Garavanta of Henkel, and Tom Manning of US EPA, on findings of Groundwater Sampling Work Plan of February 2001.
HST-010	Q p11	Fax from Dragun Corp, with cc. to Jack Garavanta of Henkel Corp., of MDEQ Part 201 Cleanup concentrations of contaminants, authored by Jeffrey Bolin of Dragun.
HST-011	NONE	Letter to Tom Manning of US EPA authored by Jeffrey

Henkel Administrative Order
Relationship of findings of fact in the Order to documents
included in the Administrative Record

<u>Document Number</u>	<u>Finding Pgh &Pg.</u>	<u>Description/Author(if applicable)</u>
		Bolin of Dragun Corp, cc. Jack Garavanta of Henkel, summarizing a conference call on May 11, 2000, and including an attachment of groundwater sampling results at Henkel, Morenci MI.
HST-012	NONE	Fax from Tom Manning of US EPA to Jack Garavanta of Henkel, indicating "Comments: None" to Groundwater Sampling Plan Meeting Notes.
HST-013	P p11	Letter from Tom Manning, US EPA to Jack Garavanta, Henkel, asking Henkel to implement the Groundwater Sampling Plan (HST-006), and conveying concern regarding results due to lack of signed Voluntary Agreement on site cleanup.
HST-014	NONE	Letter from Michael Jaeger of KAR Laboratories to Clifford Lawson of Dragun Corp., complying with Dragun's request for the Standard Operating Procedure (SOP) for Analysis of Volatile Organic Compounds (VOCs). A copy of the SOP is attached to this letter.
HST-015	NONE	Letter from Jeffrey Bolin of Dragun Corp. to Tom Manning of US EPA with cc. to Jack Garavanta of Henkel, submitting a copy of the SOP for VOCs from KAR Laboratories (HST-014).
HST-016	Q p11	Groundwater Sampling Report authored by Dragun Corp., prepared for Henkel Corp.
HST-017	P p11 9/2001	Several Drafts of Voluntary Cleanup agreement for the Henkel Morenci, exchanged and modified several times between US EPA and Henkel Corp.
HST-018	T, sub pgh D p13	Letter to Tom Manning of the US EPA, authored by Jack Garavanta of Henkel Corp, specifying that the Groundwater Sampling of 8/2001 was in lieu of a proposed voluntary agreement, and claiming that the analytical results from the sampling event show no unacceptable concentrations of VOCs.
HST-019	P,p11	Letter from US EPA, authored by Tom Manning, to Jack

Henkel Administrative Order
Relationship of findings of fact in the Order to documents
included in the Administrative Record

<u>Document Number</u>	<u>Finding Pgh &Pg.</u>	<u>Description/Author(if applicable)</u>
	T sub part D, p13	Garavanta of Henkel Corp, specifying that without a Voluntary Cleanup Agreement, Mr. Manning cannot formally address the groundwater sampling results (of HST-016), and stating the finding that a groundwater problem exists, and that the matter is being turned over to the Enforcement and Compliance Assurance Branch (ECAB).
HST-020	Q p11	Fax of Monitoring Well and soil boring data from Clay Spencer of the MDEQ to Brian P. Freeman of the US EPA.
HST-021	Q p11	Newly prepared Environmental Indicator Determinations CA-725 and CA-750 authored by Brian P. Freeman (US EPA) re: Henkel Corp.
HST-022	G p5	US EPA Envirofacts internet query results on the Henkel Corp. Morenci, MI site.
HST-023	T sub part D p13	Letter authored by Jack Garavanta of Henkel to Brian P. Freeman of US EPA setting forth Henkel's reasoning regarding a potential enforcement order.
HST-024	Q p11 T sub part D p13	Response letter of US EPA authored by Brian P. Freeman responding to statements made in the Henkel (Garavanta) letter of 11/28/2001 (HST-023) and stating that US EPA intends to issue an administrative order for corrective action at the Henkel Corp. site.

